WEEKLY WEATHER REPORT.

1878.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

LONDON:
PRINTED FOR HER MAJESTY'S STATIONERY OFFICE;
AND PUBLISHED BY
J. D. POTTER, 31, POULTRY, AND 11, KING STREET, TOWER HILL;
AND E. STANFORD, CHARING CROSS.

1207

WEEKLY WEATHER REPORT, 1878.

REPORTS RECEIVED TOO LATE FOR INSERTION IN THEIR PROPER PLACES.

No. of Report.	For Week ending	Names of Stations.	Temperature.				Rainfall.		
			Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
			°	°	°	°		Inches.	Inches.
18	June 10 -	Wick - - - - - - -	59	33	49·0	−5·1	2	0·82	+0·45
20	June 24 -	Douglas (Isle of Man) - -	63	41	53·3	−4·6	1	0·45	?
23	July 15 -	Kelstern (Lincolnshire) - ℳ	69	45	58·4	−3·1	2	0·02	−0·47
26	August 5 -	Strathfield Turgiss - - ℳ	77	42	62·8	−0·6	3	0·76	+0·31
27	August 12 -	Strathfield Turgiss - - ℳ	76	55	66·3	+3·0	2	0·26	−0·11
28	August 19 -	Audley End (Saffron Walden) ℳ	73	50	61·7	−1·1	5	0·95	?
„	„ „ -	Strathfield Turgiss - - ℳ	73	55	64·5	+1·2	4	1·09	+0·72
„	„ „ -	Portishead - - - - -	74	55	63·1	+0·8	3	0·97	+0·36
29	August 26 -	Glasgow - - - - -	68	50	57·9	+1·5	3	0·33	−0·68
„	„ „ -	Portishead - - - - -	73	51	63·5	+3·0	4	0·41	−0·29
31	September 9 -	Shrewsbury - - - - ℳ	72	47	61·0	+3·4	4	0·98	?
32	September 16	Audley End (Saffron Walden) ℳ	74	40	56·8	−2·0	2	0·17	?
„	„ „	Shrewsbury - - - ℳ	72	38	53·9	−3·7	2	0·45	?
33	September 23	Shrewsbury - - - ℳ	67	36	55·9	−1·7	5	1·18	?
35	October 7 -	Shrewsbury - - - ℳ	67	34	54·9	+0·4	5	0·82	?
41	November 18	Sumburgh Head - - - -	47	34	40·6	−0·8	4	0·39	−0·20
42	November 25	Sumburgh Head - - - -	49	26	39·3	−2·0	5	0·50	−0·17
44	December 9 -	Jersey (Noirmont) - - -	47	32	39·5	−7·4	6	0·66	−0·06
47	December 30 -	Parsonstown - - - -	53	8	32·4	−8·7	5	0·90	+0·14

K 486. 150.—2/79 Wt. 13829. E. & S.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 1.] WEEK ENDING MONDAY, FEBRUARY 11, 1878. [*Price 2d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map. — The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the district to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.

2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).

3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.

4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.

5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.

6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).

7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.

8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.

9. IRELAND, N.—Greencastle, Armagh, Donaghadee.

10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857–69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866–75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	53	28	42	2 above.	1	less than ⅓	4 less.
	2. ENGLAND, NORTH-EAST	53	24	37	2 below.	1	less than ⅓	4 less.
	3. ENGLAND, EAST	51	22	36	4 below.	1	less than ⅓	4 less.
	4. MIDLAND COUNTIES	49	25	37	5 below.	2	1	4 less.
	5. ENGLAND, SOUTH	49	25	37	5 below.	3	1	3 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	56	27	42	2 below.	Vble.	1	8 less.
	7. ENGLAND, NORTH-WEST	49	27	38	4 below.	2	0	6 less.
	8. ENGLAND, SOUTH-WEST	50	24	41	2 below.	2	2	6 less.
	9. IRELAND, NORTH	54	34	42	1 below.	2	less than ⅓	6 less.
	10. IRELAND, SOUTH	52	29	45	2 below.	3	3	5 less.

General Remarks.

The thermometer fell below the freezing point (32° F.) in the shade on five days in the east and north-east of England, on four days in the south, on three days in the south-west and north-west, and once in the west of Scotland and central parts of Ireland. In "Scotland, W." rain fell on three days at Ardrossan and on two at Laudale, but not at all at Glasgow and Silloth.

Weather has been gloomy and foggy generally, with very light winds and calms.

The data from which the summary on the preceding page has been calculated, are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	52	34	43·3	+3·9	1	0·05	−0·29
	Aberdeen	53	31	41·8	+2·7	2	0·05	−0·50
	Glenalmond	49	28	40·1	+0·6	0	—	?
	Leith	52	32	42·0	+2·5	0	—	−0·39
2. ENGLAND, N.E.	Shields	51	34	39·9	+0·6	0	—	−0·40
	Durham	53	27	36·9	−2·6	2	0·05	−0·39
	Scarborough	47	30	37·4	−1·8	1	0·03	−0·34
	York	52	24	36·5	−3·2	1	0·02	−0·42
	Kelstern (Lincolnshire) ℔	52	27	35·8	−3·9	1	0·03	−0·41
3. ENGLAND, E.	Yarmouth	41	28	35·2	−4·3	1	0·01	−0·50
	Cambridge	51	26	37·1	−3·4	1	0·03	−0·30
	Audley End (Saffron Walden) ℔	49	22	35·6	−4·9	1	0·05	?
	Rothamsted							
4. MIDLAND COUNTIES	Nottingham	49	26	36·1	−4·4	2	0·04	−0·39
	Leicester	49	27	36·4	−4·2	1	0·01	?
	Shrewsbury ℔							
	Hereford ℔	48	26	36·9	−5·0	2	0·08	−0·47
	Cirencester							
	Oxford	47	25	36·5	−4·7	2	0·09	−0·34
5. ENGLAND, S.	London	44	25	35·7	−5·5	2	0·13	−0·27
	Marlborough ℔	46	25	36·8	−4·8	3	0·25	−0·34
	Strathfield Turgiss ℔	46	23	36·0	−5·5	3	0·17	−0·31
	Dover	44	30	37·0	−4·0	2	0·04	−0·40
	Hastings	45	28	36·4	−4·9	3	0·12	−0·30
	Hurst Castle	49	27	39·2	−2·7	3	0·11	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	53	27	42·2	+2·4	2	0·14	?
	Glasgow	56	34	43·8	+4·1	0	—	−1·02
	Ardrossan	50	33	43·7	+3·7	3	0·06	−0·75
	Silloth	49	32	39·8	−0·5	0	—	−0·64
	Douglas (Isle of Man)							
7. ENGLAND, N.W.	Stonyhurst	46	30	38·1	−2·5	1	0·01	−0·91
	Manchester	46	27	35·7	−5·0	1	0·03	−0·52
	Liverpool Observatory (Bidston)	48	28	36·6	−5·1	2	0·02	−0·34
	Holyhead	49	37	41·2	−1·3	2	0·03	−0·56
8. ENGLAND, S.W.	Pembroke	48	36	42·3	−1·1	1	0·08	−0·67
	Portishead	43	24	37·0	−4·8	2	0·05	−0·53
	Falmouth	50	39	44·3	−0·7	3	0·35	−0·53
	Plymouth	49	31	41·7	−2·0	2	0·21	−0·66
9. IRELAND, N.	Greencastle	54	35	42·8	+1·6	0	—	−0·71
	Armagh	50	34	41·6	+0·3	2	0·11	−0·49
	Donaghadee	50	38	41·3	+0·2	2	0·02	?
10. IRELAND, S.	Kingstown	49	36	42·1	−0·1	3	0·17	−0·38
	Parsonstown	51	29	42·8	+0·8	1	0·30	−0·22
	Roche's Point	52	38	45·0	+1·7	3	0·24	−0·80
	Valencia	52	42	47·9	+4·0	4	0·32	−0·76
SCOTLAND, N.	Sumburgh Head	48	30	41·5	+3·0	3	0·06	−0·54
	Stornoway	49	36	43·6	+4·2	5	0·43	−0·65
	Thurso	49	35	42·5	+3·2	5	0·91	+0·33
	Wick	50	35	41·7	+2·5	5	0·54	+0·12
——	Scilly (St. Mary's)	51	42	46·0	+0·2	3	0·17	−0·56
	Jersey (Noirmont)	49	30	38·5	−5·0	2	0·08	−0·44

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with ℔ are in connection with the Meteorological Society.
Shrewsbury: observations not received. Rothamsted, Cirencester, and Douglas (Isle of Man), have not commenced reporting yet.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending February 11, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[17730.—150.—4/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 2.] WEEK ENDING MONDAY, FEBRUARY 18, 1878. [*Price 2d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the district to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857–69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866–75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	56	26	41	2 above.	5	6	1 less.
	2. ENGLAND, NORTH-EAST	59	30	43	3 above.	4	8	4 more.
	3. ENGLAND, EAST	60	28	43	3 above.	6	8	4 more.
	4. MIDLAND COUNTIES	60	30	45	3 above.	5	7	3 more.
	5. ENGLAND, SOUTH	61	31	45	4 above.	6	9	4 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	59	27	43	3 above.	7	10	2 more.
	7. ENGLAND, NORTH-WEST	62	32	44	3 above.	5	6	1 less.
	8. ENGLAND, SOUTH-WEST	58	34	47	4 above.	5	9	2 more.
	9. IRELAND, NORTH	55	33	43	2 above.	7	10	2 more.
	10. IRELAND, SOUTH	57	33	46	3 above.	6	13	5 more.

General Remarks.

WEATHER.—Mild and damp generally; hardly any frost reported. Sly to Wly winds prevalent, and occasionally blowing a gale in the western and northern counties.

In ENGLAND N.W. the rainfall was very irregularly distributed, Stonyhurst and Liverpool being very much short of their average quantities, while Manchester and Holyhead were slightly in excess.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	56	26	39·8	+0·4	3	0·16	−0·18
	Aberdeen	53	36	42·6	+3·5	4	0·34	−0·21
	Glenalmond	51	32	40·3	+0·8	6	1·34	?
	Leith	55	30	42·9	+3·4	6	0·38	−0·01
2. ENGLAND, N.E.	Shields	56	34	42·8	+3·5	4	0·56	+0·16
	Durham	57	31	42·2	+2·7	4	0·99	+0·54
	Scarborough	56	35	42·9	+3·7	4	0·56	+0·19
	York	59	30	42·4	+2·7	5	0·81	+0·37
	Kelstern (Lincolnshire) ℳ	56	30	42·2	+2·5	5	0·94	+0·50
3. ENGLAND, E.	Yarmouth	52	32	42·1	+2·6	6	0·62	+0·11
	Cambridge	59	31	44·0	+3·5	5	0·64	+0·31
	Audley End (Saffron Walden) ℳ	60	28	44·0	+3·5	6	0·62	?
	Rothamsted	59	31	44·2	+3·2	7	1·12	+0·66
4. MIDLAND COUNTIES	Nottingham	60	32	43·8	+3·3	5	0·64	+0·21
	Leicester	59	33	45·0	+4·4	5	0·61	?
	Shrewsbury ℳ	59	30	43·8	+2·2	6	0·47	?
	Hereford ℳ	57	32	45·1	+3·2	5	0·62	+0·07
	Cirencester	58	31	43·9	+2·3	6	1·07	+0·46
	Oxford	59	32	45·5	+4·3	4	0·76	+0·33
5. ENGLAND, S.	London	61	35	46·6	+5·4	6	0·71	+0·31
	Marlborough ℳ	58	34	45·1	+3·6	5	0·86	+0·27
	Strathfield Turgiss ℳ	61	31	45·4	+3·9	5	1·01	+0·53
	Dover	52	36	43·9	+2·9	7	0·70	+0·26
	Hastings	53	37	44·2	+2·9	6	1·14	+0·72
	Hurst Castle	54	33	45·9	+4·0	6	1·22	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	55	27	41·0	+1·2	4	1·15	?
	Glasgow	58	32	45·0	+5·3	7	0·88	−0·14
	Ardrossan	51	33	43·2	+3·2	7	0·94	+0·13
	Silloth	59	28	43·4	+3·1	7	1·15	+0·51
	Douglas (Isle of Man)							
7. ENGLAND, N.W.	Stonyhurst	57	34	42·9	+2·3	5	0·23	−0·69
	Manchester	58	32	43·3	+2·6	4	0·76	+0·21
	Liverpool Observatory (Bidston)	62	33	44·5	+2·8	3	0·23	−0·13
	Holyhead	58	35	44·9	+2·4	6	1·01	+0·42
8. ENGLAND, S.W.	Pembroke	50	40	45·4	+2·0	5	1·23	+0·48
	Portishead	58	34	45·9	+4·1	4	0·66	+0·08
	Falmouth	55	43	48·8	+3·8	7	1·04	+0·16
	Plymouth	55	41	48·5	+5·2	5	0·76	−0·11
9. IRELAND, N.	Greencastle	55	34	42·7	+1·5	7	0·85	+0·14
	Armagh	55	33	42·8	+1·5	6	0·79	+0·19
	Donaghadee	54	35	43·2	+2·1	7	1·32	?
10. IRELAND, S.	Kingstown	56	36	45·5	+3·3	5	1·21	+0·66
	Parsonstown	57	33	43·9	+1·9	6	0·90	+0·38
	Roche's Point	53	38	46·5	+3·2	5	1·79	+0·75
	Valencia	55	39	48·5	+4·6	7	1·18	+0·10
SCOTLAND, N.	Sumburgh Head	48	28	40·7	+2·2	4	0·38	−0·22
	Stornoway	51	30	41·0	+1·6	5	0·46	−0·62
	Thurso	54	27	42·4	+3·1	5	0·32	−0·27
	Wick	52	26	40·9	+1·7	5	0·23	−0·19
——	Scilly (St. Mary's)	54	45	50·1	+4·3	7	0·68	−0·05
	Jersey (Noirmont)	54	43	48·3	+4·8	6	1·32	+0·80

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with ℳ are in connection with the Meteorological Society.
Douglas (Isle of Man) has not commenced reporting yet.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending February 18, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[17730.—150.—4/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 3.] WEEK ENDING MONDAY, FEBRUARY 25, 1878. [*Price 2d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the district to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.

2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).

3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.

4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.

5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.

6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).

7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.

8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.

9. IRELAND, N.—Greencastle, Armagh, Donaghadee.

10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857–69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866–75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	59	31	44	5 above.	2	1	4 less.
	2. ENGLAND, NORTH-EAST	55	31	45	5 above.	Vble.	1	4 less.
	3. ENGLAND, EAST	54	31	44	4 above.	2	less than ½	4 less.
	4. MIDLAND COUNTIES	54	29	45	4 above.	2	1	4 less.
	5. ENGLAND, SOUTH	55	35	45	4 above.	2	1	5 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	57	31	46	5 above.	4	5	6 less.
	7. ENGLAND, NORTH-WEST	54	35	45	4 above.	5	3	3 less.
	8. ENGLAND, SOUTH-WEST	54	38	46	3 above.	2	2	6 less.
	9. IRELAND, NORTH	54	36	46	5 above.	5	2	4 less.
	10. IRELAND, SOUTH	55	36	47	5 above.	3	3	5 less.

General Remarks.

A very mild dry week all over the Kingdom, but especially mild in Scotland and the north of England, where the weather is described as having been "very pleasant, genial, and springlike," and "more like April or May than February." In many parts of England the rainfall was partial; thus, in the southern parts of "England, N.E." rain fell on 3 days, while in the northern parts there was not enough to measure.

Hoar frost occurred 5 times around Durham, twice in London, and once at Hastings; but frosts in the shade were both rare and slight.

The sky was much more cloudy in the southern and western than in the northern districts.

The data from which the summary on the preceding page has been calculated, are as follow :—

Districts	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	59	35	45·2	+5·8	2	0·13	−0·21
	Aberdeen	59	31	44·2	+5·1	2	0·09	−0·46
	Glenalmond	55	30	42·6	+3·1	3	0·25	?
	Leith	55	35	45·3	+5·8	0	—	−0·39
2. ENGLAND, N.E.	Shields	53	37	44·8	+5·5	0	—	−0·40
	Durham	55	31	43·7	+4·2	0	—	−0·44
	Scarborough	55	39	45·4	+6·2	1	0·03	−0·34
	York	53	38	45·9	+6·2	3	0·04	−0·40
	Kelstern (Lincolnshire) ℳ	51	33	43·0	+3·3	4	0·16	−0·28
3. ENGLAND, E.	Yarmouth	52	35	43·5	+4·0	0	—	−0·51
	Cambridge	54	31	44·2	+3·7	2	0·06	−0·27
	Audley End (Saffron Walden) ℳ	53	32	43·6	+3·1	1	0·01	?
	Rothamsted	?54	31	44·2	+3·2	3	0·04	−0·42
4. MIDLAND COUNTIES	Nottingham	53	30	44·3	+3·8	2	0·31	−0·12
	Leicester	50	34	44·9	+4·3	3	0·09	?
	Shrewsbury ℳ	54	29	45·0	+3·4	2	0·04	?
	Hereford ℳ	54	32	44·6	+2·7	1	0·01	−0·54
	Cirencester	51	36	44·5	+2·9	3	0·05	−0·56
	Oxford	51	37	44·9	+3·7	2	0·08	−0·35
5. ENGLAND, S.	London	55	36	45·1	+3·9	0	—	−0·40
	Marlborough ℳ	53	35	44·7	+3·1	3	0·06	−0·53
	Strathfield Turgiss ℳ	54	35	45·2	+3·7	0	—	−0·48
	Dover	52	40	45·4	+4·4	0	—	−0·44
	Hastings	54	36	45·5	+4·2	2	0·04	−0·38
	Hurst Castle	52	35	44·5	+2·6	2	0·11	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	55	31	43·1	+3·3	5	1·23	?
	Glasgow	57	39	47·6	+7·9	4	0·47	−0·55
	Ardrossan	52	42	46·8	+6·8	4	0·31	−0·50
	Silloth	53	36	45·2	+4·9	2	0·03	−0·61
	Douglas, Isle of Man	53	32	44·7	+3·0	3	0·39	?
7. ENGLAND, N.W.	Stonyhurst	51	37	44·4	+3·8	5	0·60	−0·32
	Manchester	52	35	44·4	+3·7	5	0·23	−0·32
	Liverpool Observatory (Bidston)	54	38	45·6	+3·9	5	0·19	−0·17
	Holyhead	51	42	46·7	+4·2	4	0·17	−0·42
8. ENGLAND, S.W.	Pembroke	51	44	46·9	+3·5	2	0·13	−0·62
	Portishead	53	38	45·5	+3·7	0	—	−0·58
	Falmouth	52	42	47·4	+2·4	3	0·39	−0·49
	Plymouth	54	38	46·0	+2·3	1	0·14	−0·73
9. IRELAND, N.	Greencastle	54	36	45·9	+4·7	5	0·29	−0·42
	Armagh	51	39	46·1	+4·8	5	0·32	−0·28
	Donaghadee	52	37	45·8	+4·7	3	0·12	?
10. IRELAND, S.	Kingstown	52	42	47·2	+5·0	2	0·12	−0·43
	Parsonstown	51	36	46·2	+4·2	4	0·11	−0·41
	Roche's Point	54	42	47·5	+4·2	1	0·48	−0·56
	Valencia	55	41	48·9	+5·0	5	0·60	−0·48
SCOTLAND, N.	Sumburgh Head	48	34	42·6	+4·1	7	0·70	+0·10
	Stornoway	51	34	44·2	+4·8	6	0·63	−0·45
	Thurso	58	35	45·0	+5·7	5	0·66	+0·08
	Wick	59	33	43·9	+4·7	2	0·40	−0·02
——	Scilly (St. Mary's)	53	45	49·1	+3·3	5	0·17	−0·56
	Jersey (Noirmont	51	39	44·5	+1·0	3	0·12	−0·40

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with ℳ are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending February 25, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[17730.—150.—4/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 4.] WEEK ENDING MONDAY, MARCH 4, 1878. [*Price 2d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the district to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857–69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866–75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	54	33	46	6 above.	5	5	0 (average).
	2. ENGLAND, NORTH-EAST	59	38	48	8 above.	4	3	1 less.
	3. ENGLAND, EAST	59	33	48	7 above.	3	4	1 more.
	4. MIDLAND COUNTIES	60	34	49	7 above.	4	5	2 more.
	5. ENGLAND, SOUTH	59	35	48	6 above.	3	9	4 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	60	30	47	7 above.	6	19	10 more.
	7. ENGLAND, NORTH-WEST	56	40	48	6 above.	5	14	8 more.
	8. ENGLAND, SOUTH-WEST	56	40	49	5 above.	5	14	7 more.
	9. IRELAND, NORTH	56	38	48	6 above.	5	12	7 more.
	10. IRELAND, SOUTH	60	41	51	7 above.	5	12	5 more.

General Remarks.

A very mild week in all parts of the Kingdom, and very wet in all the north-western, western, and southern districts. Over the greater part of the Midland Counties the fall of rain was, if anything, rather less than the mean for the corresponding week in the 10 years 1866-75, but a heavy fall in the south-western parts of the district on the 1st of March brought up the average to two-tenths *more* than the mean,—as shown in the Table.

The prevalent winds have been S.Wly. to Wly., moderate to fresh in force. On 28th February, however, they blew a strong breeze, and on 1st March a fresh gale over the greater portion of Ireland and England.

Frosts have been very rare and slight.

The data from which the summary on the preceding page has been calculated, are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	54	34	45·6	+6·1	5	0·27	−0·05
	Aberdeen	53	34	44·3	+4·6	4	0·34	−0·14
	Glenalmond	52	33	45·1	+5·4	5	0·67	?
	Leith	54	37	47·7	+7·8	4	0·50	+0·17
2. ENGLAND, N.E.	Shields	58	39	47·9	+8·0	4	0·21	−0·16
	Durham	58	39	48·1	+8·0	4	0·10	−0·35
	Scarborough	58	39	48·4	+8·4	4	0·32	−0·05
	York	59	39	48·6	+8·3	3	0·27	−0·12
	Kelstern (Lincolnshire) ℜ	56	38	46·7	+6·1	4	0·56	+0·17
3. ENGLAND, E.	Yarmouth	57	38	47·8	+7·1	4	0·45	−0·02
	Cambridge	59	35	48·8	+7·6	3	0·38	+0·06
	Audley End (Saffron Walden) ℜ	58	33	48·0	+6·6	3	0·35	?
	Rothamsted	57	35	48·7	+7·2	3	0·54	+0·13
4. MIDLAND COUNTIES	Nottingham	60	36	49·6	+8·5	3	0·26	−0·17
	Leicester	57	37	48·4	+7·2	3	0·31	?
	Shrewsbury ℜ	57	40	49·4	+7·4	4	0·48	?
	Hereford ℜ	58	36	49·4	+7·1	4	0·46	0·00
	Cirencester	55	34	47·3	+5·2	4	1·35	+0·82
	Oxford	58	39	49·2	+7·4	4	0·38	−0·01
5. ENGLAND, S.	London	59	37	49·3	+7·3	3	0·39	+0·03
	Marlborough ℜ	57	36	48·8	+6·5	3	0·98	+0·46
	Strathfield Turgis ℜ	58	35	49·1	+6·8	3	0·56	+0·16
	Dover	53	42	47·6	+5·6	3	1·33	+0·88
	Hastings	56	40	47·3	+5·0	4	1·12	+0·71
	Hurst Castle	56	41	47·8	+5·1	4	0·82	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	55	30	44·1	+4·0	6	3·25	?
	Glasgow	60	40	49·5	+9·4	6	1·49	+0·71
	Ardrossan	52	43	48·3	+7·9	5	1·79	+1·11
	Silloth	52	40	47·3	+6·4	5	1·66	+1·14
	Douglas (Isle of Man)	52	42	46·8	+4·7	5	1·49	?
7. ENGLAND, N.W.	Stonyhurst	54	40	47·2	+6·0	5	2·03	+1·21
	Manchester	56	40	48·1	+6·8	5	1·31	+0·79
	Liverpool Observatory (Bidston)	56	43	49·0	+6·9	5	0·73	+0·38
	Holyhead	53	44	48·5	+5·5	5	1·46	+0·93
8. ENGLAND, S.W.	Pembroke	51	45	48·4	+4·5	5	1·02	+0·33
	Portishead	56	40	48·9	+6·5	4	2·32	+1·79
	Falmouth	54	43	49·8	+4·4	6	1·25	+0·49
	Plymouth	56	40	49·5	+5·3	4	0·99	+0·24
9. IRELAND, N.	Greencastle	56	40	47·9	+6·5	5	1·35	+0·68
	Armagh	55	42	48·7	+6·8	5	1·22	+0·72
	Donaghadee	53	38	47·2	+5·6	5	1·10	?
10. IRELAND, S.	Kingstown	60	44	51·1	+8·6	5	0·38	−0·15
	Parsonstown	57	41	49·6	+7·2	5	1·11	+0·60
	Roche's Point	55	44	49·8	+5·7	5	1·92	+1·00
	Valencia	56	46	51·5	+7·2	6	1·55	+0·54
SCOTLAND, N.	Sumburgh Head	49	28	42·2	+3·6	6	0·84	+0·37
	Stornoway	52	32	44·0	+4·5	7	1·34	?
	Thurso	56	33	44·8	+5·4	6	0·86	+0·35
	Wick	52	31	43·4	+4·1	5	0·47	+0·11
——	Scilly (St. Mary's)	56	47	51·4	+4·9	6	0·41	−0·19
	Jersey (Noirmont)	54	36	49·2	+5·1	5	0·67	+0·03

The observations made in "Scotland, N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with ℜ are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending March 4, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[17730.—150.—4/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. NO. 5.] WEEK ENDING MONDAY, MARCH 11, 1878. [*Price 2d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the district to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	57	24	41	1 above.	4	4	1 more.
	2. ENGLAND, NORTH-EAST	56	25	44	3 above.	3	2	1 less.
	3. ENGLAND, EAST	57	28	45	3 above.	3	2	2 less.
	4. MIDLAND COUNTIES	58	30	46	4 above.	3	1	3 less.
	5. ENGLAND, SOUTH	59	32	46	3 above.	2	1	3 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	58	25	44	3 above.	6	13	2 more.
	7. ENGLAND, NORTH-WEST	54	33	46	3 above.	6	6	1 more.
	8. ENGLAND, SOUTH-WEST	60	38	48	4 above.	2	1	4 less.
	9. IRELAND, NORTH	53	38	46	4 above.	6	5	1 more.
	10. IRELAND, SOUTH	55	38	49	5 above.	6	4	3 less.

General Remarks.

A mild week again, but less so by about 4° in the northern and 2° in the southern half of the kingdom than that which preceded it. Sharp frost occurred in the northern and north-eastern districts on the 9th, severe W. to N.W. gales on the 7th and 8th, with some snow.

Rainfall below the average, except in Scotland, the north of Ireland, and extreme north-west of England, where the fall was in excess of the mean. At Yarmouth rain or slight snow fell on 6 days, but at the other stations in "England, East" only 3 rainy days were reported.

The data from which the summary on the preceding page has been calculated, are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	50	29	40·5	+0·9	6	0·67	+0·37
	Aberdeen	55	30	41·5	+1·3	4	0·40	−0·02
	Glenalmond	52	24	39·8	−0·2	4	0·40	?
	Leith	57	26	43·7	+3·4	2	?0·19	−0·07
2. ENGLAND, N.E.	Shields	54	28	43·1	+2·5	2	0·29	−0·06
	Durham	56	25	44·1	+3·4	2	0·29	−0·16
	Scarborough	55	33	44·9	+4·2	3	0·10	−0·27
	York	56	28	44·0	+3·1	3	0·25	−0·10
	Kelstern (Lincolnshire) ℳ	55	28	43·0	+1·6	4	0·23	−0·12
3. ENGLAND, E.	Yarmouth	54	34	43·3	+1·4	6	0·19	−0·24
	Cambridge	56	28	45·0	+3·2	3	0·23	−0·08
	Audley End (Saffron Walden) ℳ	56	29	46·1	+3·8	3	0·21	?
	Rothamsted	57	30	45·5	+3·4	2	0·12	−0·25
4. MIDLAND COUNTIES	Nottingham	58	30	45·4	+3·8	2	0·09	−0·34
	Leicester	56	33	46·1	+4·4	5	0·21	?
	Shrewsbury ℳ	56	36	46·5	+4·1	3	0·18	?
	Hereford ℳ	56	37	46·9	+4·3	2	0·09	−0·28
	Cirencester	56	38	45·3	+2·7	3	0·12	−0·34
	Oxford	56	37	45·9	+3·6	2	0·15	−0·20
5. ENGLAND, S.	London	57	36	47·3	+4·6	3	0·15	−0·18
	Marlborough ℳ	57	32	45·6	+2·6	3	0·13	−0·32
	Strathfield Turgiss ℳ	59	34	46·4	+3·4	1	0·07	−0·25
	Dover	54	37	46·1	+3·2	2	0·05	−0·41
	Hastings	54	35	45·9	+2·6	3	0·19	−0·22
	Hurst Castle	55	40	47·3	+3·8	2	0·06	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	54	25	40·6	+0·3	7	3·57	?
	Glasgow	58	32	46·1	+5·6	5	0·82	+0·29
	Ardrossan	53	32	45·1	+4·3	6	0·73	+0·18
	Silloth	53	27	45·1	+3·7	5	0·45	+0·04
	Douglas (Isle of Man)	52	36	45·3	+3·0	6	0·80	?
7. ENGLAND, N.W.	Stonyhurst	50	33	44·3	+2·6	6	1·24	+0·52
	Manchester	51	30	44·2	+2·4	5	0·65	+0·16
	Liverpool Observatory (Bidston)	53	36	45·2	+2·7	5	0·34	−0·01
	Holyhead	54	41	47·0	+3·6	6	0·25	−0·23
8. ENGLAND, S.W.	Pembroke	52	43	47·4	+3·1	2	0·14	−0·47
	Portishead	53	38	46·3	+3·4	2	0·09	−0·35
	Falmouth	55	43	49·1	+3·3	2	0·28	−0·37
	Plymouth	60	41	49·1	+4·5	2	0·20	−0·43
9. IRELAND, N.	Greencastle	52	39	45·7	+4·1	7	0·92	+0·29
	Armagh	52	39	46·4	+4·0	4	0·28	−0·13
	Donaghadee	53	38	45·2	+3·2	5	0·20	?
10. IRELAND, S.	Kingstown	55	42	47·8	+4·8	5	0·17	−0·37
	Parsonstown	54	38	47·5	+4·8	6	0·45	−0·07
	Roche's Point	55	40	48·6	+3·9	2	0·40	−0·40
	Valencia	55	43	50·0	+5·3	7	0·50	−0·44
SCOTLAND, N.	Sumburgh Head	47	25	37·9	+0·7	6	1·61	+1·27
	Stornoway	49	29	40·0	+0·5	7	2·57	?
	Thurso	50	26	39·9	+2·4	7	1·84	+1·39
	Wick	49	28	39·8	+0·3	6	0·72	+0·41
——	Scilly (St. Mary's)	54	47	50·3	+3·1	4	0·13	−0·36
	Jersey (Noirmont)	53	42	48·5	+3·8	5	0·28	−0·47

The observations made in "Scotland, N." and at Scilly and Jersey are not included in the Summary on page 1.
The stations marked with ℳ are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending March 11, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[17730.—150.—4/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 6.] WEEK ENDING MONDAY, MARCH 18, 1878. [*Price 2d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the district to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.

2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).

3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.

4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.

5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.

6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).

7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.

8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.

9. IRELAND, N.—Greencastle, Armagh, Donaghadee.

10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	56	29	41	1 above.	0	–	3 less.
	2. ENGLAND, NORTH-EAST	61	29	41	0 (average).	2	1	3 less.
	3. ENGLAND, EAST	56	24	39	3 below.	2	1	3 less.
	4. MIDLAND COUNTIES	56	24	41	1 below.	0	–	4 less.
	5. ENGLAND, SOUTH	57	24	40	3 below.	1	less than ½	3 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	61	27	42	1 above.	1	0	5 less.
	7. ENGLAND, NORTH-WEST	52	28	42	1 below.	0	–	5 less.
	8. ENGLAND, SOUTH-WEST	57	28	43	1 below.	0	–	6 less.
	9. IRELAND, NORTH	54	31	42	0 (average).	2	less than ½	5 less.
	10. IRELAND, SOUTH	58	28	45	2 above.	1	1	6 less.

General Remarks.

Weather.—Much colder than in either of the two preceding weeks except in the east of Scotland, where the average values for the previous and present weeks were identical. Frosts occurred even in the shade on 5 nights over the extreme Southern and South-eastern counties, on 4 nights over the inland counties of England and in some parts of Scotland, and less frequently elsewhere. The inland parts of Ireland had frosts on 3 nights, but the coast stations escaped.

Rainfall was very much below the mean for previous years, especially in the Western and inland parts of England. The rainfall along our Eastern and South-eastern coasts was very remarkable, stations so situated reporting rain on from 3 to 5 days, the amounts collected varying from 3 to 5 tenths. In the meantime the stations situated a few miles inland had hardly any fall large enough to measure. The prevailing winds have been North-westerly and light, and the air very dry.

The data from which the summary on the preceding page has been calculated, are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	56	29	41·5	+1·9	0	—	−0·30
	Aberdeen	56	32	41·2	+1·0	0	—	−0·42
	Glenalmond	55	30	41·1	+1·1	0	—	?
	Leith	51	29	41·4	+1·1	0	—	−0·26
2. ENGLAND, N.E.	Shields	58	31	41·1	+0·5	3	0·07	−0·28
	Durham	61	29	41·3	+0·6	2	0·02	−0·43
	Scarborough	57	37	42·2	+1·5	3	0·10	−0·27
	York	58	29	41·2	+0·3	1	0·01	−0·34
	Kelstern (Lincolnshire) ℳ	54	30	39·5	−1·9	2	0·05	−0·30
3. ENGLAND, E.	Yarmouth	52	30	39·1	−2·8	4	0·25	−0·18
	Cambridge	56	26	40·7	−1·1	1	0·02	−0·29
	Audley End (Saffron Walden) ℳ	54	24	38·6	−3·7	3	0·05	?
	Rothamsted	55	24	39·2	−2·9	1	0·01	−0·36
4. MIDLAND COUNTIES	Nottingham	56	29	42·3	+0·7	0	—	−0·43
	Leicester	54	28	40·5	−1·2	0	—	?
	Shrewsbury ℳ	54	24	40·3	−2·1	0	—	?
	Hereford ℳ	54	26	40·9	−1·7	1	0·01	−0·36
	Cirencester	54	26	40·7	−1·9	0	—	−0·46
	Oxford	54	29	40·8	−1·5	0	—	−0·35
5. ENGLAND, S.	London	54	25	39·8	−2·9	0	—	−0·33
	Marlborough ℳ	56	26	40·2	−2·8	0	—	−0·45
	Strathfield Turgiss ℳ	57	24	41·0	−2·0	0	—	−0·32
	Dover	53	31	40·1	−2·8	5	0·20	−0·26
	Hastings	52	28	39·4	−3·9	1	0·02	−0·41
	Hurst Castle	57	27	40·9	−2·6	1	0·02	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	51	31	41·0	+0·7	2	0·04	?
	Glasgow	53	32	44·2	+3·7	1	0·02	−0·51
	Ardrossan	51	31	41·4	+0·6	1	0·02	−0·53
	Silloth	61	27	42·3	+0·9	0	—	−0·41
	Douglas (Isle of Man)	52	29	41·5	−0·8	1	0·04	?
7. ENGLAND, N.W.	Stonyhurst	51	31	40·6	−1·1	0	—	−0·72
	Manchester	51	28	40·4	−1·4	0	—	−0·49
	Liverpool Observatory (Bidston)	49	34	42·0	−0·5	0	—	−0·35
	Holyhead	52	34	43·5	+0·1	0	—	−0·48
8. ENGLAND, S.W.	Pembroke	51	34	43·4	−0·9	0	—	−0·61
	Portishead	56	28	41·7	−1·2	0	—	−0·44
	Falmouth	54	32	44·2	−1·6	0	—	−0·65
	Plymouth	57	30	43·8	−0·8	0	—	−0·63
9. IRELAND, N.	Greencastle	54	31	42·5	+0·9	2	0·06	−0·57
	Armagh	52	31	42·7	+0·3	3	0·04	−0·37
	Donaghadee	51	32	42·2	+0·2	1	0·02	?
10. IRELAND, S.	Kingstown	53	37	44·2	+1·2	1	0·07	−0·45
	Parsonstown	58	28	44·1	+1·4	1	0·06	−0·46
	Roche's Point	55	36	45·7	+1·0	1	0·09	−0·71
	Valencia	56	34	47·2	+2·5	2	0·03	−0·91
SCOTLAND, N.	Sumburgh Head	49	29	40·3	+1·7	4	0·29	−0·05
	Stornoway	51	32	41·9	+2·4	2	0·03	?
	Thurso	53	33	42·7	+3·3	4	0·34	−0·11
	Wick	53	31	41·5	+2·0	3	0·10	−0·21
——	Scilly (St. Mary's)	52	41	46·7	−0·5	1	0·01	−0·48
	Jersey (Noirmont)	52	35	43·5	−1·2	1	0·03	−0·72

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with ℳ are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending March 18, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[17730.—150.—4/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 7.] WEEK ENDING MONDAY, MARCH 25, 1878. [*Price 2d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the district to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.

2. ENGLAND, N.E.—...ds, Durham, Scarborough, York, ...elstern (Lincolnshire).

3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.

4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.

5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.

6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).

7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.

8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.

9. IRELAND, N.—Greencastle, Armagh, Donaghadee.

10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	61	25	40	0 (average).	4	3	1 more.
	2. ENGLAND, NORTH-EAST	57	19	41	0 (average).	3	3	1 less.
	3. ENGLAND, EAST	59	21	41	1 below.	4	3	0 (average).
	4. MIDLAND COUNTIES	58	24	41	1 below.	2	1	3 less.
	5. ENGLAND, SOUTH	58	24	42	1 below.	2	1	3 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	64*	28	42	1 above.	2	2	5 less.
	7. ENGLAND, NORTH-WEST	55	26	41	1 below.	{Vble. 1 to 4}	2	3 less.
	8. ENGLAND, SOUTH-WEST	55	27	44	1 below.	3	3	3 less.
	9. IRELAND, NORTH	54	31	42	0 (average).	4	4	0 (average).
	10. IRELAND, SOUTH	57	30	44	0 (average).	3	2	5 less.

* This very high temperature (64°) occurred at Silloth only. None of the other stations in that district recorded a higher reading than 58°.

General Remarks.

In the course of this week the weather has undergone a great and sudden change, from a period of warm dry Westerly breezes to one of cold biting Northerly to North-westerly winds, accompanied by severe frost at night, snow, and hail. The change commenced in Scotland on the 21st, and, spreading quickly to the Southward, reached the south of England the following day. Frost occurred (in the shade) on 4 nights in Scotland, E., and England, N.E., and on 3 nights over the Eastern, Southern, and Midland counties, but the extreme South-western stations have not reported any frost. Over the inland parts of Ireland frost occurred several times. The air has been very dry generally, and the Northerly wind blew a strong breeze over all the Northern and North-eastern districts on the 21st and a stiff gale on the 24th.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	54	26	38·9	−0·7	5	0·24	−0·06
	Aberdeen	56	26	39·4	−0·8	6	0·76	+0·34
	Glenalmond	55	25	38·5	−1·5	1	0·01	?
	Leith	61	28	42·5	+2·2	4	0·20	−0·06
2. ENGLAND, N.E.	Shields	54	26	40·0	−0·6	2	0·30	−0·05
	Durham	56	26	39·5	−1·2	2	0·25	−0·20
	Scarborough	57	29	42·3	+1·6	4	0·36	−0·01
	York	57	19	40·7	−0·2	2	0·17	−0·18
	Kelstern (Lincolnshire) ℞	57	26	41·3	−0·1	4	0·38	+0·03
3. ENGLAND, E.	Yarmouth	53	29	40·5	−1·4	6	0·56	+0·13
	Cambridge	59	24	42·9	+1·1	2	0·37	+0·06
	Audley End (Saffron Walden) ℞	54	25	40·4	−1·9	2	0·24	?
	Rothamsted	56	21	40·8	−1·3	3	0·10	−0·27
4. MIDLAND COUNTIES	Nottingham	58	24	42·1	+0·5	1	0·05	−0·38
	Leicester	54	26	41·5	−0·2	2	0·02	?
	Shrewsbury ℞	54	24	39·1	−3·3	3	0·20	?
	Hereford ℞	55	27	41·2	−1·4	3	0·27	−0·10
	Cirencester	53	27	40·6	−2·0	1	0·13	−0·33
	Oxford	53	27	41·4	−0·9	1	0·02	−0·33
5. ENGLAND, S.	London	56	26	42·3	+0·4	2	0·03	−0·30
	Marlborough ℞	56	24	41·6	−1·4	2	0·20	−0·25
	Strathfield Turgiss ℞	58	25	42·7	−0·3	1	0·05	−0·27
	Dover	53	28	42·3	−0·6	4	0·28	−0·18
	Hastings	54	24	41·0	−2·3	3	0·10	−0·31
	Hurst Castle	55	28	43·1	−0·4	2	0·08	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	53	29	39·8	−0·5	5	0·60	?
	Glasgow	58	32	44·2	+3·7	0	—	−0·53
	Ardrossan	54	33	43·2	+2·4	2	0·11	−0·44
	Silloth	64	28	43·8	+2·4	2	0·03	−0·38
	Douglas (Isle of Man)	52	28	40·5	−1·8	2	0·15	?
7. ENGLAND, N.W.	Stonyhurst	55	28	39·6	−2·1	1	0·05	−0·67
	Manchester	53	26	40·1	−1·7	1	0·05	−0·44
	Liverpool Observatory (Bidston)	51	30	41·8	−0·7	3	0·27	−0·08
	Holyhead	54	32	42·9	−0·5	4	0·29	−0·19
8. ENGLAND, S.W.	Pembroke	54	32	43·0	−1·3	3	0·28	−0·33
	Portishead	54	27	42·8	−0·1	1	0·08	−0·36
	Falmouth	53	34	44·3	−1·5	3	0·49	−0·16
	Plymouth	55	33	44·9	+0·3	3	0·21	−0·42
9. IRELAND, N.	Greencastle	53	32	41·7	+0·1	4	0·67	+0·04
	Armagh	54	31	41·6	−0·8	5	0·35	−0·06
	Donaghadee	53	32	42·4	+0·4	2	0·15	?
10. IRELAND, S.	Kingstown	54	32	42·5	−0·5	4	0·22	−0·30
	Parsonstown	57	30	42·5	−0·2	4	0·13	−0·39
	Roche's Point	53	34	44·7	0·0	3	0·16	−0·64
	Valencia	57	36	46·3	+1·6	2	0·20	−0·74
SCOTLAND, N.	Sumburgh Head	50	24	35·7	−2·9	7	0·33	−0·01
	Stornoway	51	29	38·9	−0·6	7	0·47	?
	Thurso	54	26	39·7	+0·3	6	1·23	+0·78
	Wick	54	26	38·7	−0·8	6	0·82	+0·51
——	Scilly (St. Mary's)	54	37	46·3	−0·9	4	0·17	−0·32
	Jersey (Noirmont)	55	34	44·1	−0·6	4	0·99	+0·24

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with ℞ are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending March 25, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[17730.—150.—4/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 8.] WEEK ENDING MONDAY, APRIL 1, 1878. [*Price 2d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the district to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.

2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).

3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.

4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.

5. ENGLAND, S.—London, Marlb[illegible]ugh, Strathfield Turgiss, Dover, Hastings, [illegible] Castle.

6. SCOTLAND, W.—Laudale (Loch [illegible]unart), Glasgow, Ardrossan, Silloth [illegible]ouglas (Isle of Man).

7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.

8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.

9. IRELAND, N.—Greencastle, Armagh, Donaghadee.

10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	47	21	34	9 below.	5	6	3 more.
	2. ENGLAND, NORTH-EAST	46	26	35	9 below.	6	7	3 more.
	3. ENGLAND, EAST	49	17	36	10 below.	6	6	2 more.
	4. MIDLAND COUNTIES	51	23	37	9 below.	6	5	1 more.
	5. ENGLAND, SOUTH	51	25	37	9 below.	5	12	7 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	53	25	38	7 below.	4	4	4 less.
	7. ENGLAND, NORTH-WEST	47	25	38	8 below.	4	5	1 more.
	8. ENGLAND, SOUTH-WEST	56	28	40	7 below.	5	6	1 more.
	9. IRELAND, NORTH	49	30	38	6 below.	6	7	2 more.
	10. IRELAND, SOUTH	53	26	41	6 below.	4	4	2 less.

General Remarks.

A very cold week in all parts of the kingdom, the average temperatures varying from six degrees below the mean in Ireland to ten degrees below the mean in the east of England. In "Scotland, E.," the average temperature for the week was only two degrees above the freezing point. Frost occurred even in the shade on every day in Scotland and on almost every day in England and the northern and central parts of Ireland.

Rainfall heavy in the south and east, consisting largely of snow and hail. The largest amounts fell during the prevalence of the gale which swept over the southern half of England on the 29th.

Wind has been chiefly North-westerly to Northerly and of moderate strength, but blew a stiff gale from N.E. over England on the 29th, and a strong breeze or slight gale from N.W. on several parts of our northern coasts during the 31st.

The data from which the summary on the preceding page has been calculated, are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	41	22	32·0	−10·2	4	0·68	+0·37
	Aberdeen	41	21	32·7	−10·1	6	0·86	+0·40
	Glenalmond	46	21	34·3	−8·6	2	0·22	?
	Leith	47	25	37·0	−6·1	6	0·56	+0·25
2. ENGLAND, N.E.	Shields	44	27	35·0	−8·5	7	0·75	+0·37
	Durham	46	26	35·1	−8·6	6	0·68	+0·22
	Scarborough	45	28	36·5	−7·2	6	0·88	+0·51
	York	46	26	35·7	−8·3	5	0·47	+0·09
	Kelstern (Lincolnshire) ℳ	46	27	34·3	−10·1	7	0·88	+0·53
3. ENGLAND, E.	Yarmouth	44	25	35·5	−9·2	7	0·72	+0·30
	Cambridge	49	21	36·1	−9·0	6	0·39	+0·08
	Audley End (Saffron Walden) ℳ	47	17	34·9	−10·5	5	0·81	?
	Rothamsted	47	24	35·9	−9·6	5	0·63	+0·23
4. MIDLAND COUNTIES	Nottingham	51	23	36·7	−8·2	6	0·35	−0·07
	Leicester	46	27	36·5	−8·6	6	0·45	?
	Shrewsbury ℳ	50	25	36·4	−9·1	7	0·47	?
	Hereford ℳ	48	26	36·9	−9·0	7	0·50	+0·14
	Cirencester	49	26	35·9	−10·1	4	0·71	+0·25
	Oxford	49	28	37·0	−8·8	5	0·53	+0·18
5. ENGLAND, S.	London	49	25	37·3	−8·7	5	0·90	+0·56
	Marlborough ℳ	51	21	35·2	−11·0	5	1·01	+0·56
	Strathfield Turgiss ℳ	51	25	36·4	−9·8	5	0·91	+0·55
	Dover	44	30	37·4	−8·5	6	1·17	+0·72
	Hastings	47	27	37·0	−9·3	6	1·64	+1·23
	Hurst Castle	48	28	38·7	−7·8	5	1·67	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	44	26	35·9	−7·0	5	1·05	?
	Glasgow	53	30	38·4	−6·0	1	0·06	−0·47
	Ardrossan	47	30	38·7	−5·0	5	0·29	−0·24
	Silloth	51	25	37·8	−6·3	2	0·15	−0·35
	Douglas (Isle of Man)	45	29	36·5	−8·7	5	0·46	?
7. ENGLAND, N.W.	Stonyhurst	44	29	37·3	−7·4	4	0·59	−0·07
	Manchester	45	25	35·4	−9·6	4	0·66	+0·18
	Liverpool Observatory (Bidston)	45	31	37·7	−7·7	4	0·46	+0·15
	Holyhead	47	34	40·4	−5·4	4	0·20	−0·24
8. ENGLAND, S.W.	Pembroke	54	30	39·3	−7·9	4	0·32	−0·23
	Portishead	54	28	39·2	−7·0	4	0·60	+0·16
	Falmouth	50	32	40·8	−7·7	5	1·12	+0·51
	Plymouth	56	29	41·6	−5·7	6	0·47	−0·09
9. IRELAND, N.	Greencastle	49	31	38·3	−6·0	7	1·28	+0·66
	Armagh	49	30	37·9	−7·0	4	0·17	−0·28
	Donaghadee	47	31	38·3	−6·2	6	0·49	?
10. IRELAND, S.	Kingstown	46	32	38·9	−6·7	5	0·27	−0·17
	Parsonstown	50	26	38·6	−7·0	1	0·07	−0·42
	Roche's Point	50	33	41·2	−6·0	3	0·45	−0·26
	Valencia	53	34	43·1	−4·0	6	0·98	+0·08
SCOTLAND, N.	Sumburgh Head	39	22	31·3	−9·4	4	0·30	−0·08
	Stornoway	40	24	31·9	−9·8	7	0·87	?
	Thurso	43	18	34·6	−7·1	5	1·11	+0·62
	Wick	44	20	31·6	−10·3	7	1·16	+0·80
——	Scilly (St. Mary's)	52	36	43·5	−6·0	6	1·18	+0·70
	Jersey (Noirmont)	52	35	41·8	−5·8	7	0·68	+0·08

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with ℳ are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending April 1, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[98.—150.—4/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. NO. 9.] WEEK ENDING MONDAY, APRIL 8, 1878. [*Price 2d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the district to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	59	27	40	3 below.	1	1	3 less.
	2. ENGLAND, NORTH-EAST	55	27	42	2 below.	2	4	0 (average).
	3. ENGLAND, EAST	59	26	41	4 below.	3	3	1 less.
	4. MIDLAND COUNTIES	60	24	42	3 below.	3	2	2 less.
	5. ENGLAND, SOUTH	59	27	43	4 below.	3	3	1 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	61	28	43	1 below.	2	2	3 less.
	7. ENGLAND, NORTH-WEST	59	31	44	2 below.	2	2	3 less.
	8. ENGLAND, SOUTH-WEST	61	31	45	3 below.	5	6	0 (average).
	9. IRELAND, NORTH	55	32	43	2 below.	2	3	2 less.
	10. IRELAND, SOUTH	56	31	44	3 below.	5	7	1 more.

General Remarks.

Weather cold in all parts of our islands, but especially so in the east and south. Frosts occurred almost every night in the east of Scotland, on five nights over the midland and eastern counties of England, and on three or four nights over the central parts of Ireland. Thunderstorms were experienced in the south of Ireland on Thursday and in the south of England on Friday.

Rainfall below the average except on our south-west coasts, where the south-easterly gale of Sunday and Monday brought with it a considerable fall of rain, while our other coasts escaped.

Wind fresh from north-west to west till the 3rd, when it became light and variable. Early on the 7th easterly to south-easterly winds set in over our south-western counties, subsequently increasing to a gale and spreading all over the country.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	56	29	40·7	−1·5	0	—	−0·31
	Aberdeen	49	28	39·6	−3·2	1	0·08	−0·38
	Glenalmond	56	27	38·9	−4·0	2	0·35	?
	Leith	59	28	42·0	−1·1	2	0·04	−0·27
2. ENGLAND, N.E.	Shields	49	31	40·3	−3·2	2	0·18	−0·20
	Durham	55	27	41·3	−2·4	2	0·79	+0·33
	Scarborough	49	34	43·0	−0·7	3	0·52	+0·15
	York	54	30	42·2	−1·8	2	0·23	−0·15
	Kelstern (Lincolnshire) ℳ	53	30	41·5	−2·9	3	0·17	−0·18
3. ENGLAND, E.	Yarmouth	48	29	40·2	−4·5	2	0·28	−0·14
	Cambridge	59	27	42·5	−2·6	2	0·21	−0·10
	Audley End (Saffron Walden) ℳ	54	26	41·9	−3·5	2	0·21	?
	Rothamsted	53	27	40·5	−5·0	4	0·30	−0·10
4. MIDLAND COUNTIES	Nottingham	59	24	42·7	−2·2	2	0·09	−0·33
	Leicester	56	28	42·8	−2·3	3	0·22	?
	Shrewsbury ℳ	56	26	41·0	−4·5	3	0·10	?
	Hereford ℳ	60	30	42·8	−3·1	3	0·25	−0·11
	Cirencester	57	27	42·0	−4·0	4	0·23	−0·23
	Oxford	56	29	42·0	−3·8	2	0·13	−0·22
5. ENGLAND, S.	London	57	29	42·8	−3·2	3	0·37	+0·03
	Marlborough ℳ	57	29	42·3	−3·9	2	0·15	−0·30
	Strathfield Turgiss ℳ	59	27	42·1	−4·1	4	0·28	−0·08
	Dover	48	31	41·8	−4·1	2	0·34	−0·11
	Hastings	52	33	42·6	−3·7	3	0·37	−0·04
	Hurst Castle	55	31	44·2	−2·3	3	0·29	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	55	33	42·9	0·0	4	0·29	?
	Glasgow	56	32	43·9	−0·5	1	0·07	−0·46
	Ardrossan	61	33	44·2	+0·5	2	0·09	−0·44
	Silloth	60	30	45·0	+0·9	1	0·34	−0·06
	Douglas (Isle of Man)	52	28	41·1	−4·1	4	0·41	?
7. ENGLAND, N.W.	Stonyhurst	55	33	42·3	−2·4	3	0·10	−0·56
	Manchester	57	31	42·3	−2·7	2	0·21	−0·27
	Liverpool Observatory (Bidston)	56	33	43·8	−1·6	1	0·03	−0·28
	Holyhead	59	38	45·7	−0·1	2	0·33	−0·11
8. ENGLAND, S.W.	Pembroke	52	34	44·2	−3·0	4	0·24	−0·31
	Portishead	61	32	43·9	−2·3	4	0·24	−0·20
	Falmouth	52	37	45·2	−3·3	5	1·27	+0·66
	Plymouth	56	31	45·2	−2·1	5	0·50	−0·06
9. IRELAND, N.	Greencastle	53	32	43·0	−1·3	2	0·37	−0·25
	Armagh	54	32	43·2	−1·7	3	0·23	−0·22
	Donaghadee	52	32	42·4	−2·1	2	0·17	?
10. IRELAND, S.	Kingstown	51	34	43·0	−2·6	4	0·19	−0·25
	Parsonstown	56	31	42·6	−3·0	4	0·31	−0·18
	Roche's Point	52	35	44·4	−2·8	5	1·68	+0·97
	Valencia	56	35	45·5	−1·6	5	0·69	−0·21
SCOTLAND, N.	Sumburgh Head	48	30	40·6	−0·1	2	0·15	−0·23
	Stornoway	52	31	40·6	−1·1	2	0·22	?
	Thurso	55	30	41·2	−0·5	4	0·13	−0·36
	Wick	53	25	39·9	−2·0	2	0·13	−0·23
——	Scilly (St. Mary's)	52	40	46·9	−2·6	5	0·80	+0·32
	Jersey (Noirmont)	58	40	47·4	−0·2	5	0·92	+0·32

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with ℳ are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending April 1, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[98.—150.—4/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 9.] WEEK ENDING MONDAY, APRIL 8, 1878. [*Price 2d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the district to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	DISTRICTS.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	59	27	40	3 below.	1	1	3 less.
	2. ENGLAND, NORTH-EAST	55	27	42	2 below.	2	4	0 (average).
	3. ENGLAND, EAST	59	26	41	4 below.	3	3	1 less.
	4. MIDLAND COUNTIES	60	24	42	3 below.	3	2	2 less.
	5. ENGLAND, SOUTH	59	27	43	4 below.	3	3	1 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	61	28	43	1 below.	2	2	3 less.
	7. ENGLAND, NORTH-WEST	59	31	44	2 below.	2	2	3 less.
	8. ENGLAND, SOUTH-WEST	61	31	45	3 below.	5	6	0 (average).
	9. IRELAND, NORTH	55	32	43	2 below.	2	3	2 less.
	10. IRELAND, SOUTH	56	31	44	3 below.	5	7	1 more.

General Remarks.

Weather cold in all parts of our islands, but especially so in the east and south. Frosts occurred almost every night in the east of Scotland, on five nights over the midland and eastern counties of England, and on three or four nights over the central parts of Ireland. Thunderstorms were experienced in the south of Ireland on Thursday and in the south of England on Friday.

Rainfall below the average except on our south-west coasts, where the south-easterly gale of Sunday and Monday brought with it a considerable fall of rain, while our other coasts escaped.

Wind fresh from north-west to west till the 3rd, when it became light and variable. Early on the 7th easterly to south-easterly winds set in over our south-western counties, subsequently increasing to a gale and spreading all over the country.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	56	29	40·7	−1·5	0	—	−0·31
	Aberdeen	49	28	39·6	−3·2	1	0·08	−0·38
	Glenalmond	56	27	38·9	−4·0	2	0·35	?
	Leith	59	28	42·0	−1·1	2	0·04	−0·27
2. ENGLAND, N.E.	Shields	49	31	40·3	−3·2	2	0·18	−0·20
	Durham	55	27	41·3	−2·4	2	0·79	+0·33
	Scarborough	49	34	43·0	−0·7	3	0·52	+0·15
	York	54	30	42·2	−1·8	2	0·23	−0·15
	Kelstern (Lincolnshire) ℳ	53	30	41·5	−2·9	3	0·17	−0·18
3. ENGLAND, E.	Yarmouth	48	29	40·2	−4·5	2	0·28	−0·14
	Cambridge	59	27	42·5	−2·6	2	0·21	−0·10
	Audley End (Saffron Walden) ℳ	54	26	41·9	−3·5	2	0·21	?
	Rothamsted	53	27	40·5	−5·0	4	0·30	−0·10
4. MIDLAND COUNTIES	Nottingham	59	24	42·7	−2·2	2	0·09	−0·33
	Leicester	56	28	42·8	−2·3	3	0·22	?
	Shrewsbury ℳ	56	26	41·0	−4·5	3	0·10	?
	Hereford ℳ	60	30	42·8	−3·1	3	0·25	−0·11
	Cirencester	57	27	42·0	−4·0	4	0·23	−0·23
	Oxford	56	29	42·0	−3·8	2	0·13	−0·22
5. ENGLAND, S.	London	57	29	42·8	−3·2	3	0·37	+0·03
	Marlborough ℳ	57	29	42·3	−3·9	2	0·15	−0·30
	Strathfield Turgiss ℳ	59	27	42·1	−4·1	4	0·28	−0·08
	Dover	48	31	41·8	−4·1	2	0·34	−0·11
	Hastings	52	33	42·6	−3·7	3	0·37	−0·04
	Hurst Castle	55	31	44·2	−2·3	3	0·29	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	55	33	42·9	0·0	4	0·29	?
	Glasgow	56	32	43·9	−0·5	1	0·07	−0·46
	Ardrossan	61	33	44·2	+0·5	2	0·09	−0·44
	Silloth	60	30	45·0	+0·9	1	0·34	−0·06
	Douglas (Isle of Man)	52	28	41·1	−4·1	4	0·41	?
7. ENGLAND, N.W.	Stonyhurst	55	33	42·3	−2·4	3	0·10	−0·56
	Manchester	57	31	42·3	−2·7	2	0·21	−0·27
	Liverpool Observatory (Bidston)	56	33	43·8	−1·6	1	0·03	−0·28
	Holyhead	59	38	45·7	−0·1	2	0·33	−0·11
8. ENGLAND, S.W.	Pembroke	52	34	44·2	−3·0	4	0·24	−0·31
	Portishead	61	32	43·9	−2·3	4	0·24	−0·20
	Falmouth	52	37	45·2	−3·3	5	1·27	+0·66
	Plymouth	56	31	45·2	−2·1	5	0·50	−0·06
9. IRELAND, N.	Greencastle	53	32	43·0	−1·3	2	0·37	−0·25
	Armagh	54	32	43·2	−1·7	3	0·23	−0·22
	Donaghadee	52	32	42·4	−2·1	2	0·17	?
10. IRELAND, S.	Kingstown	51	34	43·0	−2·6	4	0·19	−0·25
	Parsonstown	56	31	42·6	−3·0	4	0·31	−0·18
	Roche's Point	52	35	44·4	−2·8	5	1·68	+0·97
	Valencia	56	35	45·5	−1·6	5	0·69	−0·21
SCOTLAND, N.	Sumburgh Head	48	30	40·6	−0·1	2	0·15	−0·23
	Stornoway	52	31	40·6	−1·1	2	0·22	?
	Thurso	55	30	41·2	−0·5	4	0·13	−0·36
	Wick	53	25	39·9	−2·0	2	0·13	−0·23
———	Scilly (St. Mary's)	52	40	46·9	−2·6	5	0·80	+0·32
	Jersey (Noirmont)	58	40	47·4	−0·2	5	0·92	+0·32

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with ℳ are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending April 8, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[98.—150.—4/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. NO. 10.] WEEK ENDING MONDAY, APRIL 15, 1878. [*Price 2d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the district to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.

2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).

3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.

4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.

5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.

6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).

7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.

8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.

9. IRELAND, N.—Greencastle, Armagh, Donaghadee.

10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	64	32	47	2 above.	4	2	2 less.
	2. ENGLAND, NORTH-EAST	65	31	48	1 above.	2	1	3 less.
	3. ENGLAND, EAST	66	32	49	1 above.	2	5	2 more.
	4. MIDLAND COUNTIES	66	35	49	1 above.	4	6	4 more.
	5. ENGLAND, SOUTH	65	34	49	0 (average).	3	12	10 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	65	34	49	3 above.	4	11	4 more.
	7. ENGLAND, NORTH-WEST	63	36	50	2 above.	2	3	1 less.
	8. ENGLAND, SOUTH-WEST	64	37	49	1 below.	5	12	7 more.
	9. IRELAND, NORTH	60	39	49	2 above.	4	10	5 more.
	10. IRELAND, SOUTH	63	31	50	1 above.	5	10	4 more.

General Remarks.

Weather has changed considerably, but, on the whole, gradually. Temperature has risen several degrees, the air has become much softer and more genial, frost has been very rare and slight, while the maximum day temperatures at the close of the week exceeded 60° in nearly all the districts.

Rainfall has been above the average at all but the northern stations. In the south the falls have been partial but very heavy, the most notable being that which occurred in and around London on the 11th, when from two to two-and-three-quarter inches fell over the Metropolis and its suburbs in less than twenty-four hours, accompanied by a light easterly wind.

Wind.—South-easterly gales in the north and west, and easterly gales in the south, marked the commencement of the week. The wind afterwards moderated and became easterly very generally; but on the 12th, southerly breezes set in over Ireland and spread quickly to all parts of the country.

The data from which the summary on the preceding page has been calculated, are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	63	34	47·7	+2·5	2	0·06	−0·26
	Aberdeen	64	39	48·0	+2·7	4	0·13	−0·37
	Glenalmond	59	32	45·0	−0·7	5	0·60	?
	Leith	63	33	47·2	+1·4	3	0·17	−0·18
2. ENGLAND, N.E.	Shields	61	37	46·9	+0·5	2	0·09	−0·31
	Durham	65	32	47·4	+0·8	2	0·07	−0·40
	Scarborough	64	41	47·8	+1·1	1	0·02	−0·35
	York	65	31	48·8	+1·8	2	0·10	−0·30
	Kelstern (Lincolnshire) ℳ	63	36	47·7	+0·3	2	0·04	−0·32
3. ENGLAND, E.	Yarmouth	61	40	46·2	−1·3	1	0·03	−0·37
	Cambridge	66	33	50·5	+2·2	1	0·04	−0·23
	Audley End (Saffron Walden) ℳ	64	32	49·8	+1·3	1	0·02	?
	Rothamsted	60	36	48·5	−0·4	4	2·03	+1·60
4. MIDLAND COUNTIES	Nottingham	66	36	51·3	+3·1	2	0·10	−0·30
	Leicester	61	37	49·7	+1·2	2	0·09	?
	Shrewsbury ℳ	62	35	49·0	+0·4	6	0·57	?
	Hereford ℳ	62	36	49·3	+0·1	5	0·92	+0·58
	Cirencester	62	35	48·1	−1·2	5	1·24	+0·77
	Oxford	60	38	48·9	−0·3	2	0·90	+0·54
5. ENGLAND, S.	London	64	39	50·5	+1·3	4	2·83	+2·48
	Marlborough ℳ	62	37	48·7	−0·7	2	0·77	+0·31
	Strathfield Turgiss ℳ	65	34	49·3	−0·1	2	0·74	+0·33
	Dover	57	41	48·4	−0·4	2	0·13	−0·31
	Hastings	59	40	48·9	−0·4	4	2·34	+1·93
	Hurst Castle	60	39	49·1	−0·4	3	0·62	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	59	40	50·3	+4·8	3	1·71	?
	Glasgow	58	40	50·1	+3·9	3	0·95	+0·42
	Ardrossan	65	39	49·7	+3·4	5	1·39	+0·89
	Silloth	65	34	49·3	+2·4	4	0·33	−0·06
	Douglas (Isle of Man)	57	40	47·1	−0·3	4	1·13	?
7. ENGLAND, N.W.	Stonyhurst	61	37	49·0	+1·3	2	0·10	−0·50
	Manchester	62	36	50·1	+1·9	1	0·21	−0·25
	Liverpool Observatory (Bidston)	63	39	51·3	+3·0	2	0·19	−0·08
	Holyhead	59	40	49·9	+1·7	4	0·69	+0·30
8. ENGLAND, S.W.	Pembroke	53	43	47·9	−2·1	4	0·67	+0·18
	Portishead	64	37	49·2	−0·2	5	1·14	+0·70
	Falmouth	57	41	49·8	−1·3	5	1·35	+0·78
	Plymouth	57	42	50·4	+0·5	5	1·50	+1·01
9. IRELAND, N.	Greencastle	60	39	49·4	+2·4	5	1·63	+1·05
	Armagh	60	39	49·5	+2·2	3	0·49	0·00
	Donaghadee	57	41	48·2	+1·2	4	0·75	?
10. IRELAND, S.	Kingstown	59	44	49·8	+1·6	5	0·43	+0·07
	Parsonstown	63	31	49·7	+1·2	4	0·59	+0·13
	Roche's Point	55	43	49·8	+0·1	6	1·51	+0·89
	Valencia	57	41	50·7	+1·2	4	1·50	+0·65
SCOTLAND, N.	Sumburgh Head	53	39	45·2	+2·7	3	0·11	−0·32
	Stornoway	54	39	46·8	+2·9	3	0·30	?
	Thurso	56	31	45·7	+1·7	2	0·16	−0·37
	Wick	61	39	46·8	+2·5	3	0·23	−0·18
——	Scilly (St. Mary's)	56	45	50·5	−1·3	4	1·22	+0·75
	Jersey (Noirmont)	60	43	49·5	−0·9	3	0·70	+0·26

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with ℳ are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending April 15, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[98.—150.—4/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 11.] WEEK ENDING MONDAY, APRIL 22, 1878. [*Price 2d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	62	39	49	3 above.	5	6	1 less.
	2. ENGLAND, NORTH-EAST	63	38	49	3 above.	4	10	6 more.
	3. ENGLAND, EAST	64	35	50	2 above.	6	10	6 more.
	4. MIDLAND COUNTIES	63	33	51	2 above.	6	8	5 more.
	5. ENGLAND, SOUTH	64	34	50	1 above.	6	9	4 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	68	34	51	5 above.	5	16	12 more.
	7. ENGLAND, NORTH-WEST	62	38	51	3 above.	5	8	3 more.
	8. ENGLAND, SOUTH-WEST	64	38	51	1 above.	6	9	4 more.
	9. IRELAND, NORTH	62	38	51	4 above.	4	4	1 less.
	10. IRELAND, SOUTH	62	34	51	2 above.	6	6	0 (average).

General Remarks.

Weather during this week has been mild and very unsettled. Temperature has been very uniformly distributed, the average values for our north-eastern districts being only two degrees lower than those for the west and south-west. The maximum readings were between 62° and 64° in all parts of the kingdom excepting "Scotland, West," where 68° was recorded at one station (Silloth) on the 21st.

Rainfall was above the average except in Ireland and the east of Scotland. The great excess in "Scotland, West," is owing mainly to a local downpour on the 20th, when the Ardrossan gauge collected 1·4 in., Laudale 1·2 in., Glasgow 1·1 in., and Silloth 0·9 in. This heavy fall was not experienced in either the Isle of Man or north of Ireland.

Wind was chiefly southerly and south-westerly till the 20th, but a change then took place, and easterly breezes set in over all the northern districts on the 21st and extended to the southern counties next day.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	61	39	50·9	+5·7	2	0·02	−0·30
	Aberdeen	62	43	46·9	+1·6	7	0·56	+0·06
	Glenalmond	59	40	47·4	+1·7	5	1·29	?
	Leith	61	40	48·6	+2·8	4	0·33	−0·02
2. ENGLAND, N.E.	Shields	58	41	47·1	+0·7	5	1·23	+0·83
	Durham	63	41	50·7	+4·1	5	1·22	+0·75
	Scarborough	57	41	48·1	+1·4	4	1·45	+1·08
	York	62	40	50·4	+3·4	3	0·63	+0·23
	Kelstern (Lincolnshire) ℳ	61	38	50·2	+2·8	3	0·68	+0·32
3. ENGLAND, E.	Yarmouth	55	40	47·2	−0·3	6	0·59	+0·19
	Cambridge	64	35	50·9	+2·6	5	1·07	+0·75
	Audley End (Saffron Walden) ℳ	64	36	50·3	+1·8	5	0·84	?
	Rothamsted	62	40	50·7	+1·8	6	1·42	+0·99
4. MIDLAND COUNTIES	Nottingham	63	33	51·2	+3·0	6	1·03	+0·63
	Leicester	61	41	50·5	+2·0	5	0·73	?
	Shrewsbury ℳ	63	36	50·6	+2·0	6	0·66	?
	Hereford ℳ	61	36	50·9	+1·7	7	0·61	+0·27
	Cirencester	62	36	50·6	+1·3	7	1·12	+0·65
	Oxford	61	39	51·0	+1·8	5	0·69	+0·33
5. ENGLAND, S.	London	64	40	52·6	+3·4	6	1·10	+0·75
	Marlborough ℳ	62	34	48·6	−0·8	6	0·97	+0·51
	Strathfield Turgiss ℳ	64	41	52·3	+2·9	7	0·91	+0·50
	Dover	54	43	49·5	+0·7	6	0·34	−0·14
	Hastings	57	44	49·5	+0·2	6	0·83	+0·42
	Hurst Castle	58	42	50·1	+0·6	6	1·12	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	61	40	51·5	+6·0	2	1·20	?
	Glasgow	63	44	53·3	+7·1	6	1·78	+1·25
	Ardrossan	60	47	52·5	+6·2	5	1·78	+1·28
	Silloth	68	41	52·7	+5·8	6	1·43	+1·04
	Douglas (Isle of Man)	57	34	47·0	−0·4	5	0·48*	?
7. ENGLAND, N.W.	Stonyhurst	60	38	50·4	+2·7	5	0·99	+0·39
	Manchester	61	41	50·3	+2·1	4	1·09	+0·63
	Liverpool Observatory (Bidston)	62	38	51·5	+3·2	7	0·75	+0·48
	Holyhead	58	43	52·0	+3·8	5	0·22	−0·17
8. ENGLAND, S.W.	Pembroke	56	43	49·3	−0·7	6	0·75	+0·26
	Portishead	64	38	51·8	+2·4	5	1·06	+0·62
	Falmouth	58	44	51·0	−0·1	7	0·67	+0·10
	Plymouth	57	41	51·4	+1·5	7	0·93	+0·44
9. IRELAND, N.	Greencastle	62	41	52·0	+5·0	3	0·49	−0·09
	Armagh	60	39	51·1	+3·8	5	0·42	−0·07
	Donaghadee	56	38	50·1	+3·1	4	0·80	?
10. IRELAND, S.	Kingstown	56	45	50·5	+2·3	6	0·22	−0·14
	Parsonstown	62	34	51·2	+2·7	5	0·44	−0·02
	Roche's Point	57	44	50·9	+1·2	6	0·97	+0·35
	Valencia	59	43	51·8	+2·3	5	0·82	−0·03
SCOTLAND, N.	Sumburgh Head	51	41	45·0	+2·3	0	—	−0·43
	Stornoway	56	43	48·7	+4·8	3	0·06	?
	Thurso	63	41	49·0	+5·0	4	0·05	−0·48
	Wick	59	43	47·7	+3·4	3	0·04	−0·37
——	Scilly (St. Mary's)	57	46	52·2	+0·4	7	0·42	−0·05
	Jersey (Noirmont)	57	45	50·8	+0·4	6	1·57	+1·13

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.

The stations marked with ℳ are in connection with the Meteorological Society.

* The rainfall at Douglas was so exceptional that the values were omitted in calculating the average for the district "Scotland, W.," in the Summary, page 1.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending April 22, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[98.—150.—4/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 12.] WEEK ENDING MONDAY, APRIL 29, 1878. [*Price 2d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.

2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).

3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.

4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.

5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.

6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).

7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.

8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.

9. IRELAND, N.—Greencastle, Armagh, Donaghadee.

10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	DISTRICTS.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	64	32	47	1 below.	1	less than ¼	4 less.
	2. ENGLAND, NORTH-EAST	63	34	46	3 below.	1	1	3 less.
	3. ENGLAND, EAST	66	36	50	1 below.	3	3	1 less.
	4. MIDLAND COUNTIES	69	31	51	1 below.	3	4	1 less.
	5. ENGLAND, SOUTH	66	34	52	0 (average).	3	4	0 (average).
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	69	33	50	1 above.	1	less than ¼	5 less.
	7. ENGLAND, NORTH-WEST	66	36	50	1 below.	1	less than ¼	4 less.
	8. ENGLAND, SOUTH-WEST	68	39	51	2 below.	3	5	0 (average).
	9. IRELAND, NORTH	63	38	50	0 (average).	1	2	3 less.
	10. IRELAND, SOUTH	63	32	51	1 below.	2	4	2 less.

General Remarks.

Weather during the week has been slightly colder than the mean for the corresponding week in former years. On one or two occasions, however, (towards the close of the week,) the maximum shade temperatures were high, 69° being reported in two districts, 68° in a third, and 63° to 66° in the remainder. Frost has been almost unknown. Thick fog was reported off the north-east coasts on Sunday and Monday.

Rainfall, though frequent in the southern half of the kingdom during the early part of the week, has been below the mean almost everywhere, but especially in the north and north-east.

Wind.—Easterly to north-easterly until Saturday, and moderate to fresh in force. On Saturday south-easterly breezes set in on our south-west coasts, and subsequently extended all over the country.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	64	34	47·2	−0·4	1	0·01	−0·34
	Aberdeen	52	38	44·4	−3·4	2	0·04	−0·42
	Glenalmond	59	32	50·4	+2·2	0	—	?
	Leith	60	40	45·8	−2·6	0	—	−0·37
2. ENGLAND, N.E.	Shields	51	36	43·8	−5·3	2	0·12	−0·29
	Durham	63	37	46·4	−2·8	2	0·03	−0·43
	Scarborough	51	38	46·1	−3·5	0	—	−0·40
	York	63	34	48·8	−1·0	0	—	−0·39
	Kelstern (Lincolnshire) ℳ	61	35	46·9	−3·3	1	0·37	+0·02
3. ENGLAND, E.	Yarmouth	52	39	46·6	−4·0	2	0·08	−0·34
	Cambridge	66	38	52·9	+1·6	3	0·39	+0·04
	Audley End (Saffron Walden) ℳ	66	38	51·4	0·0	3	0·59	?
	Rothamsted	63	36	50·4	−1·2	3	0·31	−0·13
4. MIDLAND COUNTIES	Nottingham	69	33	51·3	+0·2	2	0·11	−0·33
	Leicester	64	36	50·7	−0·7	2	0·41	?
	Shrewsbury ℳ	66	31	49·3	−1·1	2	0·71	?
	Hereford ℳ	63	35	50·5	−1·4	3	0·41	+0·03
	Cirencester	63	35	50·5	−1·4	3	0·38	−0·10
	Oxford	64	38	51·7	−0·2	3	0·45	+0·07
5. ENGLAND, S.	London	65	40	53·0	+1·2	3	0·33	−0·05
	Marlborough ℳ	64	36	51·1	−0·9	3	0·53	+0·07
	Strathfield Turgiss ℳ	66	34	52·2	+0·2	3	0·43	+0·06
	Dover	56	41	50·5	−0·7	4	0·37	−0·08
	Hastings	61	38	51·3	−0·3	3	0·39	0·00
	Hurst Castle	61	39	51·3	−0·7	3	0·26	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	62	38	50·4	+2·4	0	—	?
	Glasgow	63	40	50·5	+1·8	1	0·03	−0·51
	Ardrossan	65	39	50·4	+1·5	0	—	−0·50
	Silloth	69	34	49·3	−0·1	0	—	−0·40
	Douglas (Isle of Man)	59	33	46·8	−3·2	1	0·08	?
7. ENGLAND, N.W.	Stonyhurst	64	36	49·6	−0·8	1	0·02	−0·54
	Manchester	65	36	49·2	−1·8	0	—	−0·42
	Liverpool Observatory (Bidston)	65	38	51·2	+0·3	1	0·03	−0·27
	Holyhead	66	42	50·8	+0·2	1	0·06	−0·31
8. ENGLAND, S.W.	Pembroke	59	39	50·5	−1·9	2	0·30	−0·18
	Portishead	68	39	51·8	−0·2	3	0·40	−0·09
	Falmouth	61	43	50·3	−3·2	4	0·65	+0·07
	Plymouth	62	40	51·2	−1·4	3	0·57	+0·09
9. IRELAND, N.	Greencastle	63	39	50·8	+1·2	1	0·12	−0·41
	Armagh	60	39	49·2	−0·6	2	0·16	−0·26
	Donaghadee	56	38	48·5	−1·1	1	0·18	?
10. IRELAND, S.	Kingstown	57	44	49·2	−1·4	2	0·84	+0·47
	Parsonstown	63	32	49·5	−1·2	2	0·09	−0·40
	Roche's Point	61	41	51·9	+0·1	2	0·46	−0·31
	Valencia	62	40	51·4	−0·2	3	0·18	−0·57
SCOTLAND, N.	Sumburgh Head	51	36	43·9	−1·0	0	—	−0·36
	Stornoway	59	36	45·3	−1·0	1	0·02	?
	Thurso	63	32	47·0	+0·7	0	—	−0·42
	Wick	55	33	45·2	−1·4	0	—	−0·35
——	Scilly (St. Mary's)	57	45	50·9	−3·0	4	0·68	+0·32
	Jersey (Noirmont)	63	44	52·0	−0·4	3	0·17	−0·27

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with ℳ are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending April 29, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[98.—150.—5/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 13.] WEEK ENDING MONDAY, MAY 6, 1878. [*Price 2d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.

2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).

3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.

4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.

5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.

6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).

7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.

8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.

9. IRELAND, N.—Greencastle, Armagh, Donaghadee.

10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857–69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866–75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	72	39	52	4 above.	3	2	2 less.
	2. ENGLAND, NORTH-EAST	71	40	52	3 above.	3	3	1 less.
	3. ENGLAND, EAST	73	38	55	4 above.	3	1	3 less.
	4. MIDLAND COUNTIES	75	36	55	4 above.	3	5	1 more.
	5. ENGLAND, SOUTH	69	36	55	3 above.	2	2	3 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	71	42	54	5 above.	3	5	0 (average).
	7. ENGLAND, NORTH-WEST	67	40	53	3 above.	3	4	0 (average).
	8. ENGLAND, SOUTH-WEST	67	41	53	1 above.	5	7	2 more.
	9. IRELAND, NORTH	68	43	53	4 above.	4	5	1 less.
	10. IRELAND, SOUTH	65	42	54	3 above.	5	8	2 more.

General Remarks.

Weather has been mild and changeable, with thunder over England during the early part of the week. There has been a complete absence of frost. The average temperatures are all higher than the mean for previous years, and the day readings have been above 70° at the inland stations on several occasions.

Rainfall has been decidedly short of the mean in the northern and eastern districts, but in other places it has been variable; some stations having had an excessive fall, while others at a few miles distant had less than usual.

Wind has been light to moderate generally, and very variable in direction. At the close of the week, however, it blew strongly from S.E. over all the western districts, while it was moderate from east elsewhere.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	69	41	53·0	+5·4	2	0·12	−0·23
	Aberdeen	65	41	50·7	+2·9	1	0·02	−0·42
	Glenalmond	61	39	49·4	+1·2	4	? 0·29	?
	Leith	72	41	52·9	+4·5	5	0·30	−0·07
2. ENGLAND, N.E.	Shields	63	40	50·6	+1·5	4	0·22	−0·19
	Durham	71	40	52·3	+3·1	3	0·36	−0·10
	Scarborough	65	43	51·7	+2·1	2	0·14	−0·26
	York	69	42	53·8	+4·0	4	0·40	+0·01
	Kelstern (Lincolnshire) ℳ	68	40	53·0	+2·8	4	0·43	+0·08
3. ENGLAND, E.	Yarmouth	61	45	52·1	+1·5	3	0·17	−0·25
	Cambridge	73	38	57·1	+5·8	2	0·10	−0·25
	Audley End (Saffron Walden) ℳ	72	43	56·8	+5·4	4	0·07	?
	Rothamsted	67	39	54·8	+3·2	4	0·10	−0·34
4. MIDLAND COUNTIES	Nottingham	75	38	57·7	+6·6	4	1·04	+0·60
	Leicester	69	40	55·2	+3·8	4	0·56	?
	Shrewsbury ℳ	68	36	53·8	+2·4	4	0·27	?
	Hereford ℳ	65	36	53·7	+1·8	3	0·63	+0·25
	Cirencester	67	36	54·3	+2·4	4	0·28	−0·20
	Oxford	66	39	55·3	+3·4	1	0·07	−0·31
5. ENGLAND, S.	London	69	42	57·8	+6·0	2	0·22	−0·16
	Marlborough ℳ	67	40	55·5	+3·5	4	0·24	−0·22
	Strathfield Turgiss ℳ	69	36	54·9	+2·9	1	0·11	−0·26
	Dover	62	46	54·3	+3·1	0	—	−0·45
	Hastings	64	47	54·5	+2·9	4	0·13	−0·26
	Hurst Castle	62	42	53·6	+1·6	2	0·32	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	71	44	56·8	+8·8	4	0·28	?
	Glasgow	65	44	53·5	+4·8	4	0·58	+0·04
	Ardrossan	68	45	53·0	+4·1	4	0·46	−0·04
	Silloth	69	42	54·6	+5·2	3	0·30	−0·10
	Douglas (Isle of Man)	59	42	50·9	+0·9	2	0·69	?
7. ENGLAND, N.W.	Stonyhurst	67	41	52·8	+2·4	2	0·38	−0·18
	Manchester	67	40	53·3	+2·3	4	0·29	−0·13
	Liverpool Observatory (Bidston)	67	43	54·1	+3·2	4	0·40	+0·10
	Holyhead	61	47	52·9	+2·3	3	0·59	+0·22
8. ENGLAND, S.W.	Pembroke	61	44	51·8	−0·6	5	0·28	−0·20
	Portishead	67	41	53·8	+1·8	5	1·24	+0·75
	Falmouth	60	45	53·4	−0·1	5	0·31	−0·27
	Plymouth	63	41	54·1	+1·5	6	1·14	+0·66
9. IRELAND, N.	Greencastle	6	43	54·9	+5·3	4	0·34	−0·19
	Armagh	63	45	53·6	+3·8	5	0·52	+0·10
	Donaghadee	64	45	51·7	+2·1	4	0·63	?
10. IRELAND, S.	Kingstown	63	48	54·1	+3·5	5	0·79	+0·42
	Parsonstown	65	42	53·8	+3·1	4	0·45	−0·04
	Roche's Point	62	48	54·8	+3·0	6	1·50	+0·73
	Valencia	61	49	54·1	+2·5	4	0·44	−0·31
SCOTLAND, N.	Sumburgh Head	56	40	47·8	+2·9	1	0·10	−0·26
	Stornoway	64	40	50·6	+4·3	5	0·50	?
	Thurso	64	40	50·6	+4·3	3	0·11	−0·31
	Wick	65	37	49·1	+2·5	1	0·03	−0·32
——	Scilly (St. Mary's)	59	49	54·1	+0·2	6	0·68	+0·32
	Jersey (Noirmont)	63	44	54·1	+1·7	3	1·73	+1·29

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with ℳ are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending May 6, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[98.—150.—5/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.
PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL;
AND E. STANFORD, CHARING CROSS.

VOL. I. No. 14.] WEEK ENDING MONDAY, MAY 13, 1878. [*Price 2d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn; Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	63	34	49	2 below.	2	6	1 less.
	2. ENGLAND, NORTH-EAST	68	40	51	2 below.	4	10	6 more.
	3. ENGLAND, EAST	72	43	55	1 above.	6	17	14 more.
	4. MIDLAND COUNTIES	73	42	56	1 above.	7	19	13 more.
	5. ENGLAND, SOUTH	73	40	57	3 above.	6	11	7 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	76	34	53	1 above.	4	8	2 more.
	7. ENGLAND, NORTH-WEST	68	42	54	1 above.	6	13	9 more.
	8. ENGLAND, SOUTH-WEST	70	44	55	0 (average).	5	14	9 more.
	9. IRELAND, NORTH	63	41	52	0 (average).	5	10	4 more.
	10. IRELAND, SOUTH	64	42	54	1 above.	5	16	11 more.

General Remarks.

Weather during the week has been extremely unsettled. Temperature has been a little below the mean in the east of Scotland and north-east of England, but slightly above in most other districts. The maximum for the week was recorded on Sunday last, when the thermometer exceeded 70° at most of the English stations, and went as high as 76° at Silloth in Cumberland. Thunder and lightning have occurred in various districts on several occasions during the week.

Rainfall has been slightly below the average in the east of Scotland, but very much above generally. The excess has been greatest in "England, East," and the Midland counties; in the latter district rain fell every day, and in almost every district on five or six days.

Wind was very variable at the commencement of the week. Easterly to south-easterly breezes then set in and continued for three or four days, but have now been succeeded by a southerly current.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	63	34	50·3	+0·4	0	—	−0·37
	Aberdeen	59	42	49·0	−1·2	3	0·33	−0·09
	Glenalmond	59	36	47·0	−3·7	3	1·29	?
	Leith	63	34	49·1	−1·9	3	0·70	+0·31
2. ENGLAND, N.E.	Shields	59	43	48·4	−3·4	5	0·88	+0·47
	Durham	68	41	49·9	−1·9	4	1·53	+1·08
	Scarborough	66	44	50·6	−1·8	3	0·40	−0·02
	York	68	45	53·0	+0·4	4	0·93	+0·54
	Kelstern (Lincolnshire) ℳ	68	40	51·3	−1·7	6	1·06	+0·71
3. ENGLAND, E.	Yarmouth	62	46	51·6	−2·0	5	1·76	+1·32
	Cambridge	72	46	56·5	+2·2	6	1·98	+1·61
	Audley End (Saffron Walden) ℳ	71	43	56·1	+1·9	6	1·57	?
	Rothamsted	69	45	56·6	+2·3	6	1·57	+1·13
4. MIDLAND COUNTIES	Nottingham	73	43	55·1	+1·2	7	1·75	+1·28
	Leicester	69	42	55·4	+1·1	7	2·19	?
	Shrewsbury ℳ	69	43	54·4	+0·2	7	2·51	?
	Hereford ℳ	68	46	55·6	+1·1	7	2·07	+1·65
	Cirencester	69	42	55·4	+0·9	7	1·31	+0·83
	Oxford	69	46	56·9	+2·4	7	1·71	+1·32
5. ENGLAND, S.	London	73	46	58·9	+4·6	7	0·98	+0·58
	Marlborough ℳ	70	43	56·4	+1·8	5	1·28	+0·82
	Strathfield Turgiss ℳ	72	40	57·4	+2·9	4	0·79	+0·46
	Dover	62	44	55·1	+1·6	7	1·14	+0·69
	Hastings	68	43	56·2	+2·4	6	1·17	+0·79
	Hurst Castle	66	46	56·4	+2·0	5	0·93	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	64	40	53·7	+3·2	4	0·69	?
	Glasgow	65	34	52·5	+1·3	4	0·89	+0·34
	Ardrossan	63	40	52·7	+1·3	4	0·74	+0·24
	Silloth	76	37	54·4	+2·6	4	0·37	−0·04
	Douglas (Isle of Man)	60	42	51·1	−1·3	6	1·05	?
7. ENGLAND, N.W.	Stonyhurst	68	42	52·2	−0·8	5	0·87	+0·34
	Manchester	66	42	53·5	−0.2	7	1·34	+0·95
	Liverpool Observatory (Bidston)	67	43	54·5	+1·0	6	1·56	+1·24
	Holyhead	65	44	54·8	+1·8	7	1·57	+1·21
8. ENGLAND, S.W.	Pembroke	61	45	53·0	−1·7	3	1·13	+0·66
	Portishead	70	44	55·6	+1·0	6	1·94	+1·41
	Falmouth	60	46	54·3	−1·5	6	1·46	+0·88
	Plymouth	63	45	56·0	+0·7	4	1·09	+0·62
9. IRELAND, N.	Greencastle	63	41	52·7	+0·6	4	0·46	−0·03
	Armagh	61	43	52·7	+0·4	6	1·23	+0·87
	Donaghadee	59	43	50·6	−1·5	5	1·26	?
10. IRELAND, S.	Kingstown	58	47	53·3	+0·4	6	1·87	+1·50
	Parsonstown	64	42	54·7	+1·8	5	1·14	+0·63
	Roche's Point	64	43	55·5	+1·7	5	1·69	+0·96
	Valencia	62	43	53·9	+0·2	5	1·80	+1·15
SCOTLAND, N.	Sumburgh Head	52	36	45·7	−1·3	2	0·16	−0·14
	Stornoway	60	36	48·9	+0·3	2	0·13	?
	Thurso	66	31	49·9	+1·4	1	0·02	−0·30
	Wick	59	40	48·7	−0·1	2	0·09	−0·20
——	Scilly (St. Mary's)	60	49	55·1	−0·9	6	0·94	+0·68
	Jersey (Noirmont)	67	47	56·0	+1·7	4	0·93	+0·49

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with ℳ are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending May 13, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[98.—150.—5/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 15.] WEEK ENDING MONDAY, MAY 20, 1878. [*Price 2d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	67	36	52	2 above.	6	12	*5 more.
	2. ENGLAND, NORTH-EAST	69	32	55	2 above.	7	12	8 more.
	3. ENGLAND, EAST	73	44	57	3 above.	7	12	8 more.
	4. MIDLAND COUNTIES	72	43	56	2 above.	7	14	12 more.
	5. ENGLAND, SOUTH	74	46	56	2 above.	6	8	3 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	70	37	54	2 above.	7	15	8 more.
	7. ENGLAND, NORTH-WEST	66	41	54	1 above.	7	13	9 more.
	8. ENGLAND, SOUTH-WEST	66	48	55	0 (average).	6	16	11 more.
	9. IRELAND, NORTH	65	40	53	1 above.	7	20	*19 more.
	10. IRELAND, SOUTH	65	41	54	1 above.	7	19	14 more.

* The apparent discrepancy in these cases is due to irregularity in the amount of Rainfall at stations for which no averages are obtainable.

General Remarks.

Weather has again been very unsettled and windy. Temperature has been generally a little above the mean for the time of year except in "England, South-west." The maximum readings (above 70°) were reached over the inland parts of England on Saturday last, but during Sunday night a considerable fall took place in the north, and the thermometer fell lower in all places than during any other part of the week. Thunderstorms have been prevalent; those of Friday and Saturday last were very general, and were extremely heavy over England.

Rain fell every day in nearly all the districts, and the amount for the week has been greatly in excess of the mean; in many cases it has exceeded the mean for the whole month of May. The thunderstorms of Friday and Saturday were in a few instances accompanied by showers of very large hail.

Wind was south-westerly or southerly until the close of the week, when a shift to north-west and north took place. Moderate or fresh gales were felt over the greater part of the country on several days.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	64	37	52·7	+2·8	5	1·02	+0·65
	Aberdeen	64	37	51·6	+1·4	6	0·76	+0·34
	Glenalmond	62	36	50·2	−0·5	6	2·12	?
	Leith	67	38	53·6	+2·6	7	0·98	+0·59
2. ENGLAND, N.E.	Shields	64	45	53·7	+2·0	6	0·49	+0·08
	Durham	64	32	53·3	+1·5	7	1·58	+1·13
	Scarborough	65	47	55·6	+3·2	6	1·40	+0·98
	York	66	47	55·9	+3·3	7	1·49	+1·10
	Kelstern (Lincolnshire) ℳ	69	41	54·3	+1·3	7	1·13	+0·78
3. ENGLAND, E.	Yarmouth	71	50	57·3	+3·7	7	1·04	+0·60
	Cambridge	73	46	57·2	+2·9	7	0·83	+0·46
	Audley End (Saffron Walden) ℳ	72	45	56·5	+2·3	6	1·05	?
	Rothamsted	72	44	56·3	+2·0	7	1·86	+1·42
4. MIDLAND COUNTIES	Nottingham	72	43	57·5	+3·6	7	0·72	+0·25
	Leicester	70	45	56·3	+2·0	7	1·32	?
	Shrewsbury ℳ	67	43	54·9	+0·7	7	0·63	?
	Hereford ℳ	67	44	54·8	+0·3	7	1·55	+1·13
	Cirencester	66	47	54·9	+0·4	7	2·22	+1·74
	Oxford	70	49	56·7	+2·2	7	2·06	+1·67
5. ENGLAND, S.	London	74	49	58·4	+4·1	6	0·76	+0·36
	Marlborough ℳ	70	46	55·7	+1·1	7	1·33	+0·87
	Strathfield Turgiss ℳ	72	46	56·4	+1·9	5	0·51	+0·18
	Dover	64	51	55·9	+2·4	5	0·21	−0·24
	Hastings	62	46	54·6	+0·8	6	0·86	+0·48
	Hurst Castle	65	50	55·4	+1·0	6	0·87	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	70	39	52·7	+2·2	6	2·43	?
	Glasgow	63	41	54·2	+3·0	7	1·32	+0·77
	Ardrossan	61	45	53·7	+2·3	7	1·25	+0·75
	Silloth	67	46	56·5	+4·7	7	1·21	+0·80
	Douglas (Isle of Man)	59	37	51·2	−1·2	7	1·46	?
7. ENGLAND, N.W.	Stonyhurst	63	42	53·5	+0·5	7	2·59	+2·06
	Manchester	66	41	54·2	+0·5	7	1·08	+0·69
	Liverpool Observatory (Bidston)	64	42	55·2	+1·7	7	1·03	+0·71
	Holyhead	60	48	54·3	+1·3	6	0·46	+0·10
8. ENGLAND, S.W.	Pembroke	58	48	52·8	−1·9	5	0·94	+0·47
	Portishead	66	48	55·2	+0·6	7	1·87	+1·34
	Falmouth	61	48	54·9	−0·9	7	1·97	+1·39
	Plymouth	62	51	56·4	+1·1	5	1·70	+1·23
9. IRELAND, N.	Greencastle	62	40	52·2	+0·1	7	2·56	+2·07
	Armagh	63	43	53·1	+0·8	7	2·02	+1·66
	Donaghadee	65	43	52·6	+0·5	7	1·36	?
10. IRELAND, S.	Kingstown	65	47	55·1	+2·2	7	1·08	+0·71
	Parsonstown	65	41	53·8	+0·9	7	1·77	+1·26
	Roche's Point	63	46	54·9	+1·1	6	2·81	+2·08
	Valencia	60	47	53·8	+0·1	7	2·09	+1·44
SCOTLAND, N.	Sumburgh Head	57	35	48·2	+1·2	6	0·88	+0·58
	Stornoway	58	39	50·2	+1·6	7	1·37	?
	Thurso	64	39	52·2	+3·7	7	1·55	+1·23
	Wick	63	37	52·5	+3·7	6	0·80	+0·51
——	Scilly (St. Mary's)	61	49	55·2	−0·8	6	0·96	+0·70
	Jersey (Noirmont)	64	50	55·7	+1·4	5	0·69	+0·25

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with ℳ are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending May 20, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[98.—150.—5/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 16.] WEEK ENDING MONDAY, MAY 27, 1878. [*Price 2d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	64	34	47	6 below.	5	5	1 more.
	2. ENGLAND, NORTH-EAST	64	32	48	7 below.	5	8	3 more.
	3. ENGLAND, EAST	65	36	51	6 below.	7	8	3 more.
	4. MIDLAND COUNTIES	67	34	51	7 below.	7	9	3 more.
	5. ENGLAND, SOUTH	63	36	52	5 below.	6	7	3 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	64	34	49	5 below.	5	6	0 (average).
	7. ENGLAND, NORTH-WEST	60	36	50	6 below.	7	9	4 more.
	8. ENGLAND, SOUTH-WEST	61	40	53	5 below.	7	13	8 more.
	9. IRELAND, NORTH	60	35	49	6 below.	6	7	2 more.
	10. IRELAND, SOUTH	62	39	51	5 below.	7	12	7 more.

General Remarks.

Weather during this week has been cool, showery, and generally unsettled. The maximum temperatures, even over Central England have rarely reached 65°, and the highest observed (67°, in the Midland Counties) seems to have been felt very locally at Nottingham. The nights at the beginning of the week were very cold over Scotland and the north-eastern and central parts of England, and slight frosts were experienced in some places early on the morning of the 21st.

Rainfall was again above the average. The falls were principally in showers, accompanied by hail in several places; but although seven wet days were reported from many districts, the excess above the mean has not been large excepting in England, S.W. and Ireland, S., where it amounts to eight and seven-tenths of an inch respectively. Thunder occurred locally in many places, and a rather severe storm very generally on Monday.

Wind rather variable; generally westerly or north-westerly at the commencement of the week; but on Thursday easterly to northerly breezes appeared in Scotland, and by the close of the period extended to nearly all our stations.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	60	35	46·3	−6·5	5	0·17	−0·21
	Aberdeen	58	37	47·2	−6·1	4	0·84	+0·44
	Glenalmond	57	34	46·3	−7·3	4	0·50	?
	Leith	64	38	49·5	−4·4	6	0·37	−0·03
2. ENGLAND, N.E.	Shields	59	35	47·3	−7·6	5	0·54	+0·14
	Durham	64	32	47·6	−7·5	7	0·75	+0·31
	Scarborough	61	36	49·4	−6·1	4	0·83	+0·40
	York	60	33	47·9	−7·8	4	0·81	+0·33
	Kelstern (Lincolnshire) ℳ	62	35	48·5	−7·7	7	0·86	+0·46
3. ENGLAND, E.	Yarmouth	62	39	51·1	−5·4	5	0·60	+0·12
	Cambridge	65	36	51·6	−5·8	7	0·55	+0·13
	Audley End (Saffron Walden) ℳ	63	38	51·1	−6·3	7	0·90	?
	Rothamsted	62	36	51·3	−6·5	7	1·09	+0·61
4. MIDLAND COUNTIES	Nottingham	67	35	51·4	−5·5	6	0·90	+0·39
	Leicester	61	37	50·3	−7·1	7	0·60	?
	Shrewsbury ℳ	63	34	49·7	−7·2	6	1·50	?
	Hereford ℳ	62	35	50·6	−6·6	7	0·67	+0·25
	Cirencester	59	35	50·3	−7·3	7	0·68	+0·17
	Oxford	61	37	50·8	−7·1	6	0·88	+0·44
5. ENGLAND, S.	London	63	38	52·8	−5·0	6	0·73	+0·27
	Marlborough ℳ	62	36	51·4	−6·4	7	1·10	+0·64
	Strathfield Turgiss ℳ	62	37	51·9	−5·8	5	0·90	+0·52
	Dover	60	42	52·3	−4·3	5	0·39	−0·04
	Hastings	60	39	51·0	−5·8	5	0·63	+0·28
	Hurst Castle	61	41	53·4	−3·8	5	0·45	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	58	34	47·5	−5·6	5	0·89	?
	Glasgow	59	38	50·4	−3·5	6	0·53	−0·08
	Ardrossan	59	38	49·6	−4·4	6	0·58	+0·06
	Silloth	64	38	50·9	−3·9	6	0·45	+0·03
	Douglas (Isle of Man)	56	37	47·4	−7·7	2	0·65	?
7. ENGLAND, N.W.	Stonyhurst	59	36	49·5	−6·4	6	0·88	+0·26
	Manchester	59	36	49·4	−7·2	7	1·08	+0·58
	Liverpool Observatory (Bidston)	59	41	50·4	−5·9	7	1·09	+0·69
	Holyhead	60	44	52·0	−3·9	6	0·48	+0·11
8. ENGLAND, S.W.	Pembroke	61	45	51·6	−5·6	6	0·98	+0·56
	Portishead	61	40	52·0	−5·6	7	2·06	+1·55
	Falmouth	58	43	52·5	−5·6	7	1·61	+1·02
	Plymouth	61	40	53·8	−4·0	6	0·47	+0·05
9. IRELAND, N.	Dunfanaghy	60	43	50·1	−4·4	6	0·50	?
	Greencastle	58	35	48·1	−6·6	5	0·53	0·00
	Armagh	60	40	49·1	−6·0	7	0·80	+0·44
	Donaghadee	58	39	48·6	−6·3	6	1·11	?
10. IRELAND, S.	Kingstown	58	41	50·1	−5·7	7	1·03	+0·67
	Parsonstown	62	39	50·8	−5·0	7	0·95	+0·46
	Roche's Point	62	43	51·3	−5·2	5	1·12	+0·47
	Valencia	58	42	51·3	−5·0	7	1·73	+1·07
SCOTLAND, N.	Sumburgh Head	53	32	44·8	−4·6	5	0·29	0·00
	Stornoway	55	32	44·3	−6·7	4	0·35	?
	Thurso	58	33	45·7	−5·4	7	0·93	+0·59
	Wick	60	32	46·3	−5·2	3	0·34	+0·01
——	Scilly (St. Mary's)	60	48	53·6	−4·5	6	0·72	+0·33
	Jersey (Noirmont)	58	46	52·5	−5·1	5	0·74	+0·35

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with ℳ are in connection with the Meteorological Society.
N.B.—It will be seen that Dunfanaghy has been added to the list of Stations for "Ireland, N."

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending May 27, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[98.—150.—6/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 17.] WEEK ENDING MONDAY, JUNE 3, 1878. [*Price 2d.* [*Annual Subscription, post paid,* 12*s.* 6*d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.

2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).

3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.

4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.

5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.

6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).

7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.

8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.

9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.

10. IRELAND, S.—Kingstown, Parsonstown Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857–69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866–75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	62	37	51	3 below.	1	less than ½	4 less.
	2. ENGLAND, NORTH-EAST	65	35	51	5 below.	4	4	1 less.
	3. ENGLAND, EAST	68	36	52	5 below.	4	4	0 (average).
	4. MIDLAND COUNTIES	73	36	53	4 below.	3	6	0 (average).
	5. ENGLAND, SOUTH	69	36	54	3 below.	3	8	3 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	71	36	53	1 below.	2	3	2 less.
	7. ENGLAND, NORTH-WEST	66	38	54	3 below.	2	5	1 more.
	8. ENGLAND, SOUTH-WEST	68	42	55	3 below.	4	6	1 more.
	9. IRELAND, NORTH	66	40	53	2 below.	1	1	4 less.
	10. IRELAND, SOUTH	69	41	55	2 below.	2	6	0 (average).

General Remarks.

Weather has been much drier and finer than during the last few weeks, but rather cloudy and unsettled in the south-east of England. Temperature low for the time of year, the maximum readings being generally below 70°, and the minima below 40°. No night frosts, with the exception of a very slight one on the ground at Glenalmond, early on the morning of Saturday last.

Rainfall a little above the mean in the north-west, south, and south-west of England, but rather below in Scotland and the north of Ireland. Thunderstorms, with heavy rain, were experienced in many places on Tuesday the 28th, and thunder has been heard singly at some stations on other occasions. A fine waterspout was seen near Lutterworth on the afternoon of the 31st.

Wind has been very light and rather variable all the week. It was northerly at the commencement, but afterwards veered to E., and towards the close of the period had become generally south-easterly.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	60	38	50·5	−2·3	0	—	−0·38
	Aberdeen	58	39	49·8	−3·5	2	0·08	−0·32
	Glenalmond	60	37	50·3	−3·3	1	0·06	?
	Leith	62	42	51·5	−2·4	1	0·01	−0·39
2. ENGLAND, N.E.	Shields	58	41	49·5	−5·4	5	0·46	+0·06
	Durham	65	35	49·6	−5·5	4	0·35	−0·09
	Scarborough	61	42	50·8	−4·7	4	0·15	−0·28
	York	65	37	51·9	−3·8	4	0·35	−0·13
	Kelstern (Lincolnshire) ℳ	62	39	51·8	−4·4	4	0·55	+0·15
3. ENGLAND, E.	Yarmouth	57	44	51·7	−4·8	4	0·25	−0·23
	Cambridge	66	37	52·9	−4·5	5	0·33	−0·09
	Audley End (Saffron Walden) ℳ	65	36	51·6	−5·8	3	0·31	?
	Rothamsted	68	36	52·0	−5·8	4	0·72	+0·24
4. MIDLAND COUNTIES	Nottingham	73	40	56·1	−0·8	3	0·58	+0·07
	Leicester	65	42	53·1	−4·3	3	0·73	?
	Shrewsbury ℳ	66	36	52·7	−4·2	3	0·78	?
	Hereford ℳ	67	40	53·0	−4·2	2	0·63	+0·21
	Cirencester	67	37	52·8	−4.8	5	0·47	−0·04
	Oxford	66	39	52·9	−5·0	3	0·34	−0·10
5. ENGLAND, S.	London	69	40	54·8	−3·0	4	0·60	+0·14
	Marlborough ℳ	67	35	53·0	−4·8	3	0·80	+0·34
	Strathfield Turgiss ℳ	67	36	52·9	−4·8	2	0·72	+0·34
	Dover	63	48	54·6	−2·0	3	0·59	+0·16
	Hastings	62	42	53·5	−3·3	3	0·96	+0·61
	Hurst Castle	64	45	54·9	−2·3	3	0·89	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	63	36	50·7	−2·4	1	0·09	?
	Glasgow	64	44	54·3	+0·4	3	0·29	−0·32
	Ardrossan	63	43	53·8	−0·2	2	0·22	−0·30
	Silloth	71	41	56·1	+1·3	2	0·31	−0·11
	Douglas (Isle of Man)	61	37	52·1	−3·0	2	0·53	?
7. ENGLAND, N.W.	Stonyhurst	65	38	53·6	−2·3	2	0·49	−0·13
	Manchester	64	38	51·6	−5·0	3	0·56	+0·06
	Liverpool Observatory (Bidston)	64	46	54·0	−2·3	1	0·54	+0·14
	Holyhead	66	47	55·1	−0·8	2	0·50	+0·13
8. ENGLAND, S.W.	Pembroke	63	46	54·5	−2·7	2	0·41	−0·01
	Portishead	68	42	54·4	−3·2	3	0·95	+0·44
	Falmouth	64	47	54·8	−3·3	4	0·31	−0·28
	Plymouth	65	45	54·9	−2·9	5	0·68	+0·26
9. IRELAND, N.	Dunfanaghy	64	49	54·9	+0·4	1	0·06	?
	Greencastle	66	42	52·6	−2·1	0	—	−0·53
	Armagh	64	40	52·0	−3·1	2	0·07	−0·29
	Donaghadee	61	43	52·7	−2·2	2	0·10	?
10. IRELAND, S.	Kingstown	61	45	53·5	−2·3	2	0·55	+0·19
	Parsonstown	68	41	54·1	−1·7	2	0·59	+0·10
	Roche's Point	69	46	57·4	+0·9	1	0·78	+0·13
	Valencia	65	43	53·4	−2·9	2	0·38	−0·28
SCOTLAND, N.	Sumburgh Head	56	39	46·6	−2·8	4	0·10	−0·19
	Stornoway	58	39	47·8	−3·2	1	0·02	?
	Thurso	57	43	49·9	−1·2	4	0·07	−0·27
	Wick	62	38	49·4	−2·1	2	0·02	−0·31
——	Scilly (St. Mary's)	64	49	55·5	−2·6	3	0·14	−0·25
	Jersey (Noirmont)	67	49	55·8	−1·8	4	1·04	+0·65

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending June 3, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[98.—150.—6/78.]

(OFFICIAL COPY.)

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 18.] WEEK ENDING MONDAY, JUNE 10, 1878. [*Price 2d.* [*Annual Subscription, post paid,* 12*s.* 6*d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.

2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).

3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.

4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.

5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.

6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).

7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.

8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.

9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.

10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857–69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866–75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	70	35	52	4 below.	4	16	8 more.
	2. ENGLAND, NORTH-EAST	68	41	55	4 below.	6	11	7 more.
	3. ENGLAND, EAST	74	43	58	3 below.	4	4	1 less.
	4. MIDLAND COUNTIES	74	35	57	3 below.	5	10	5 more.
	5. ENGLAND, SOUTH	72	43	58	3 below.	4	4	0 (average).
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	71	41	55	2 below.	4	14	10 more.
	7. ENGLAND, NORTH-WEST	67	39	56	3 below.	5	15	10 more.
	8. ENGLAND, SOUTH-WEST	70	48	58	2 below.	4	11	6 more.
	9. IRELAND, NORTH	67	40	55	3 below.	5	13	*13 more.
	10. IRELAND, SOUTH	65	47	57	2 below.	6	17	12 more.

* The apparent discrepancy in this instance is due to irregularity in the amount of Rainfall at stations for which no averages are obtainable.

General Remarks.

Weather has been cool, cloudy, and very showery. Temperature a little below the mean for the time of year in all places. The day readings have, however, occasionally exceeded 70°, but the nights have been very cool, and in many places the minimum values have been as low as 35°. No serious frosts have occurred.

Rainfall has been greatly in excess of the mean, excepting in England, East and South. Thunder has occurred on several occasions, and the accompanying showers have been very heavy.

Wind has been generally easterly to northerly in Scotland, but over Ireland and England it has varied considerably the most prevalent directions have, however, been south-west or south.

The data from which the summary on the preceding page has been calculated, are as follow:—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	65	35	51·8	−3·9	3	1·64	+1·25
	Aberdeen	69	44	52·2	−4·1	4	1·04	+0·66
	Glenalmond	64	35	50·5	−6·0	4	2·60	?
	Leith	70	37	53·3	−3·5	4	1·02	+0·61
2. ENGLAND, N.E.	Shields	67	44	53·7	−4·3	6	0·64	+0·25
	Durham	67	41	54·7	−3·6	6	1·23	+0·81
	Scarborough	66	47	54·8	−3·7	6	0·85	+0·41
	York	68	41	54·6	−4·2	5	1·48	+0·92
	Kelstern (Lincolnshire) ℳ	68	41	54·8	−4·5	5	1·49	+1·04
3. ENGLAND, E.	Yarmouth	66	47	56·8	−2·5	3	0·29	−0·23
	Cambridge	74	43	58·4	−2·0	4	0·51	+0·04
	Audley End (Saffron Walden) ℳ	73	43	57·6	−2·9	3	0·25	?
	Rothamsted	70	45	57·4	−3·8	4	0·55	+0·04
4. MIDLAND COUNTIES	Nottingham	74	39	58·6	−1·3	5	1·26	+0·72
	Leicester	70	42	57·3	−3·2	5	0·75	?
	Shrewsbury ℳ	69	35	55·3	−4·3	6	1·42	?
	Hereford ℳ	68	47	57·2	−2·6	7	1·01	+0·59
	Cirencester	67	41	55·5	−5·1	6	1·06	+0·53
	Oxford	69	47	58·0	−3·2	3	0·44	−0·04
5. ENGLAND, S.	London	72	46	58·9	−2·3	4	0·51	0·00
	Marlborough ℳ	70	45	57·3	−3·7	5	0·95	+0·50
	Strathfield Turgiss ℳ	70	43	57·2	−3·6	4	0·32	−0·11
	Dover	69	51	57·5	−2·2	3	0·24	−0·17
	Hastings	70	46	57·4	−2·3	4	0·22	−0·09
	Hurst Castle	69	51	58·9	−1·0	3	0·29	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	63	42	53·7	−1·9	?	?	?
	Glasgow	65	42	54·4	−2·1	4	2·10	+1·43
	Ardrossan	62	42	54·2	−2·4	4	1·85	+1·32
	Silloth	71	41	57·4	−0·4	4	0·62	+0·19
	Douglas (Isle of Man)	59	47	52·9	−5·0	5	0·83	?
7. ENGLAND, N.W.	Stonyhurst	66	42	54·6	−4·2	6	1·79	+1·08
	Manchester	67	39	54·8	−4·6	4	1·83	+1·23
	Liverpool Observatory (Bidston)	65	47	56·3	−2·8	5	1·65	+1·17
	Holyhead	65	50	57·8	−1·0	5	0·88	+0·50
8. ENGLAND, S.W.	Pembroke	65	50	56·7	−2·9	3	0·94	+0·57
	Portishead	70	48	57·8	−2·7	4	1·21	+0·72
	Falmouth	65	51	58·0	−2·3	5	1·31	+0·71
	Plymouth	69	52	59·8	−0·5	5	0·93	+0·56
9. IRELAND, N.	Dunfanaghy	62	46	56·0	−1·2	4	0·84	?
	Greencastle	67	40	55·0	−2·2	4	1·26	+0·69
	Armagh	63	41	54·3	−3·6	6	2·17	+1·82
	Donaghadee	62	45	54·0	−3·6	6	0·91	?
10. IRELAND, S.	Kingstown	62	49	55·8	−2·8	6	1·14	+0·79
	Parsonstown	65	47	56·6	−2·0	7	1·58	+1·11
	Roche's Point	65	50	58·0	−1·2	6	2·38	+1·82
	Valencia	64	47	56·4	−2·4	5	1·67	+1·00
SCOTLAND, N.	Sumburgh Head	52	38	45·5	−6·3	4	0·65	+0·38
	Stornoway	59	41	49·1	−4·3	2	0·85	?
	Thurso	60	43	50·9	−2·7	4	0·65	+0·29
	Wick							
——	Scilly (St. Mary's)	62	51	58·1	−2·1	4	1·24	+0·72
	Jersey (Noirmont)	68	51	58·2	−2·5	3	0·36	+0·03

The observations made in "Scotland, N." and the "Channel Islands" are not included in the Summary on page 1,
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending June 10, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[98.—150.—6/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 19.] WEEK ENDING MONDAY, JUNE 17, 1878. [*Price 2d.*
[*Annual Subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	67	39	51	5 below.	3	5	1 more.
	2. ENGLAND, NORTH-EAST	63	37	51	8 below.	4	8	4 more.
	3. ENGLAND, EAST	66	38	54	7 below.	5	10	5 more.
	4. MIDLAND COUNTIES	71	40	55	6 below.	5	6	2 more.
	5. ENGLAND, SOUTH	70	39	56	5 below.	5	7	3 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	73	38	55	2 below.	2	4	1 less.
	7. ENGLAND, NORTH-WEST	64	40	54	5 below.	4	9	4 more.
	8. ENGLAND, SOUTH-WEST	68	44	57	3 below.	3	6	2 more.
	9. IRELAND, NORTH	70	42	55	3 below.	3	6	2 more.
	10. IRELAND, SOUTH	68	47	57	2 below.	4	8	3 more.

General Remarks.

Weather has continued changeable and showery. Temperature generally below the mean for the time of year (especially about the 14th and 15th); the maximum readings have seldom exceeded 70° even at our midland stations, and in "England, North-east," they have not been above 63°. The nights have been cool on some occasions, but no frosts are reported.

Rainfall has varied much in different localities, but has been generally above the mean. At some stations only one rainy day has occurred, while at others in the same districts four or five have been reported. Thunderstorms have occurred on many occasions.

Wind was fresh to strong from south or south-west at the commencement of the week. Moderate northerly to easterly breezes then set in, but the period closes with light variable airs.

The data from which the summary on the preceding page has been calculated, are as follow:—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	62	39	51·1	−4·6	2	0·16	−0·23
	Aberdeen	57	39	49·7	−6·6	5	0·74	+0·36
	Glenalmond	64	39	51·1	−5·4	4	0·56	?
	Leith	67	42	52·6	−4·2	2	0·49	+0·08
2. ENGLAND, N.E.	Shields	57	41	49·9	−8·1	4	0·60	+0·21
	Durham	63	37	50·2	−8·1	4	1·40	+0·98
	Scarborough	60	44	52·2	−6·3	3	0·67	+0·23
	York	60	44	52·6	−6·2	4	1·03	+0·47
	Kelstern (Lincolnshire) ℳ	62	37	50·4	−8·9	4	0·39	−0·06
3. ENGLAND, E.	Yarmouth	64	45	53·2	−6·1	4	0·27	−0·25
	Cambridge	64	39	54·2	−6·2	5	1·42	+0·95
	Audley End (Saffron Walden) ℳ	62	38	53·0	−7·5	5	0·81	?
	Rothamsted	66	47	53·7	−7·5	5	1·35	+0·84
4. MIDLAND COUNTIES	Nottingham	71	44	55·5	−4·4	5	0·47	−0·07
	Leicester	62	44	53·2	−7·3	4	0·18	?
	Shrewsbury ℳ	63	45	54·8	−4·8	3	0·54	?
	Hereford ℳ	67	43	55·5	−4·3	5	0·55	+0·13
	Cirencester	68	40	55·0	−5·6	5	0·66	+0·13
	Oxford	66	41	54·9	−6·3	5	1·02	+0·54
5. ENGLAND, S.	London	70	46	56·0	−5·2	6	1·03	+0·52
	Marlborough ℳ	67	42	54·7	−6·3	5	1·49	+1·04
	Strathfield Turgiss ℳ	67	39	54·8	−6·0	5	0·45	+0·02
	Dover	63	49	56·2	−3·5	2	0·44	+0·03
	Hastings	61	45	54·5	−5·2	5	0·39	+0·08
	Hurst Castle	64	49	57·2	−2·7	4	0·39	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	63	42	53·2	−2·4	1	0·05	?
	Glasgow	65	45	54·5	−2·0	3	0·33	−0·34
	Ardrossan	67	47	56·5	−0·1	2	0·25	−0·28
	Silloth	73	38	55·7	−2·3	2	0·76	+0·33
	Douglas (Isle of Man)	64	45	53·1	−4·8	4	0·41	?
7. ENGLAND, N.W.	Stonyhurst	63	40	52·6	−6·2	4	0·98	+0·27
	Manchester	62	41	52·2	−7·2	4	0·77	+0·17
	Liverpool Observatory (Bidston)	62	46	53·9	−5·2	5	0·72	+0·24
	Holyhead	64	50	56·3	−2·5	3	1·10	+0·72
8. ENGLAND, S.W.	Pembroke	66	48	56·5	−3·1	1	0·36	−0·01
	Portishead	68	44	56·5	−4·0	2	0·23	−0·26
	Falmouth	63	51	56·9	−3·4	4	0·77	+0·17
	Plymouth	66	49	57·4	−2·9	6	1·11	+0·74
9. IRELAND, N.	Dunfanaghy	63	50	55·9	−1·3	3	0·44	?
	Greencastle	70	42	54·8	−2·4	4	0·72	+0·15
	Armagh	64	46	53·8	−4·1	4	0·62	+0·27
	Donaghadee	65	44	53·5	−4·1	2	0·72	?
10. IRELAND, S.	Kingstown	60	50	55·7	−2·9	6	1·10	+0·75
	Parsonstown	66	48	56·6	−2·0	3	1·29	+0·82
	Roche's Point	68	50	58·1	−1·1	1	0·44	−0·12
	Valencia	63	47	55·5	−3·3	6	0·49	−0·18
SCOTLAND, N.	Sumburgh Head	55	39	47·2	−4·6	3	0·12	−0·15
	Stornoway	60	45	50·9	−2·5	0	—	?
	Thurso	64	36	49·9	−3·7	0	—	−0·36
	Wick	60	33	48·0	−6·1	1	0·01	−0·36
——	Scilly (St. Mary's)	62	52	56·7	−3·5	7	0·91	+0·39
	Jersey (Noirmont)	63	49	56·2	−4·5	4	0·37	+0·04

The observations made in "Scotland, N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending June 17, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[98.—150.—6/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 20.] WEEK ENDING MONDAY, JUNE 24, 1878. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A Rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	73	42	58	1 above.	2	3	2 less.
	2. ENGLAND, NORTH-EAST	80	43	60	1 above.	1	5	0 (average).
	3. ENGLAND, EAST	85	43	61	0 (average).	3	5	0 (average).
	4. MIDLAND COUNTIES	87	42	62	2 above.	1	1	4 less.
	5. ENGLAND, SOUTH	84	42	62	2 above.	1	3	1 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	75	42	58	1 above.	2	4	3 less.
	7. ENGLAND, NORTH-WEST	76	45	59	0 (average).	3	1	4 less.
	8. ENGLAND, SOUTH-WEST	74	46	60	0 (average).	1	1	4 less.
	9. IRELAND, NORTH	68	45	58	0 (average).	5	5	0 (average).
	10. IRELAND, SOUTH	69	43	58	1 below.	4	10	5 more.

General Remarks.

Weather has become very fine during this week. The average temperature for the whole week has been about the same as the mean for the time of year, but the maxima observed on Monday exceeded 80° over the greater part of England, the highest reading of all being above 85°. The nights were rather cool at the beginning of the week, but have since been much warmer.

Rainfall has been below the mean in most districts but above it in the south of Ireland, the excess in that district being principally due to a heavy fall on the 19th or 20th. Severe thunderstorms were felt in many parts of England on Sunday (the 23rd), and in some places (especially in the north of London) the rainfall was extremely heavy, and accompanied by showers of very large hail.

Wind has been light all the week; it was chiefly westerly at the commencement of the period, but has since become southerly.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	71	44	58·1	+2·4	2	0·28	−0·11
	Aberdeen	70	44	57·3	+1·0	1	0·01	−0·37
	Glenalmond	68	42	55·8	−0·7	2	0·54	?
	Leith	73	44	59·4	+2·6	2	0·18	−0·23
2. ENGLAND, N.E.	Shields	74	47	57·4	−0·6	2	0·03	−0·36
	Durham	80	43	60·3	+2·0	0	—	−0·42
	Scarborough	72	49	59·1	+0·6	2	1·90	+1·46
	York	80	45	60·3	+1·5	1	0·25	−0·31
	Kelstern (Lincolnshire) ℜ	77	46	60·4	+1·1	1	0·05	−0·40
3. ENGLAND, E.	Yarmouth	67	50	58·4	−0·9	2	0·48	−0·04
	Cambridge	85	44	62·4	+2·0	2	0·89	+0·42
	Audley End (Saffron Walden) ℜ	81	43	60·8	+0·3	4	0·32	?
	Rothamsted	81	44	60·9	−0·3	3	0·18	−0·33
4. MIDLAND COUNTIES	Nottingham	87	47	65·4	+5·5	3	0·09	−0·45
	Leicester	80	48	62·5	+2·0	1	0·04	?
	Shrewsbury ℜ	81	42	60·9	+1·3	2	0·17	?
	Hereford ℜ	78	45	60·9	+1·1	1	0·07	−0·35
	Cirencester	79	44	60·3	−0·3	1	0·34	−0·19
	Oxford	79	44	63·0	+1·8	0	—	−0·48
5. ENGLAND, S.	London	84	47	63·0	+1·8	3	0·68	+0·17
	Marlborough ℜ	80	46	62·4	+1·4	1	0·67	+0·22
	Strathfield Turgiss ℜ	83	42	61·2	+0·4	1	0·04	−0·39
	Dover	73	50	62·1	+2·4	1	0·07	−0·34
	Hastings	79	49	62·4	+2·7	1	0·01	−0·30
	Hurst Castle	75	41	60·7	+0·8	0	—	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	65	42	55·4	−0·2	3	0·89	?
	Glasgow	69	48	58·4	+1·9	1	0·15	−0·52
	Ardrossan	67	48	56·8	+0·2	2	0·36	−0·17
	Silloth	75	42	59·8	+2·0	2	0·20	−0·23
	Douglas (Isle of Man)							?
7. ENGLAND, N.W.	Stonyhurst	75	45	59·0	+0·2	3	0·10	−0·61
	Manchester	76	46	59·0	−0·4	4	0·10	−0·50
	Liverpool Observatory (Bidston)	72	50	59·8	+0·7	3	0·06	−0·42
	Holyhead	67	51	59·0	+0·2	1	0·20	−0·18
8. ENGLAND, S.W.	Pembroke	71	49	59·3	−0·3	2	0·16	−0·21
	Portishead	74	46	60·0	−0·5	0	—	−0·49
	Falmouth	70	51	60·4	+0·1	1	0·01	−0·59
	Plymouth	72	48	60·8	+0·5	1	0·13	−0·24
9. IRELAND, N.	Dunfanaghy	67	52	58·4	+1·2	7	0·72	?
	Greencastle	68	45	57·3	+0·1	5	0·66	+0·09
	Armagh	66	50	57·3	−0·6	5	0·26	−0·09
	Donaghadee	68	47	57·4	−0·2	3	0·45	?
10. IRELAND, S.	Kingstown	69	53	59·0	+0·4	3	0·22	−0·13
	Parsonstown	68	43	58·1	−0·5	4	0·24	−0·23
	Roche's Point	69	48	57·4	−1·8	6	1·56	+1·00
	Valencia	62	45	55·7	−3·1	6	1·99	+1·32
SCOTLAND, N.	Sumburgh Head	62	44	51·5	−0·3	3	0·07	−0·20
	Stornoway	64	45	54·4	+1·0	6	0·77	?
	Thurso	69	44	56·9	+3·3	6	0·34	−0·02
	Wick	74	40	55·6	+1·5	2	0·06	−0·31
——	Scilly (St. Mary's)	67	53	59·7	−0·5	2	0·15	−0·37
	Jersey (Noirmont)	76	51	62·2	+1·5	0	—	−0·33

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℜ" are in connection with the Meteorological Society.
Note.—The records for Douglas (Isle of Man) have not yet arrived.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending June 24, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[98.—150.—6/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 21.] WEEK ENDING MONDAY, JULY 1, 1878. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years' observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	83	48	63	5 above.	1	5	1 more.
	2. ENGLAND, NORTH-EAST	88	50	64	4 above.	1	less than ½	5 less.
	3. ENGLAND, EAST	87	50	66	4 above.	1	less than ½	5 less.
	4. MIDLAND COUNTIES	95	47	68	7 above.	2	2	3 less.
	5. ENGLAND, SOUTH	91	51	69	7 above.	3	7	3 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	95	46	66	8 above.	1	less than ½	6 less.
	7. ENGLAND, NORTH-WEST	85	46	66	6 above.	1	less than ½	6 less.
	8. ENGLAND, SOUTH-WEST	88	50	66	4 above.	4	11	6 more.
	9. IRELAND, NORTH	77	52	63	5 above.	2	6	1 more.
	10. IRELAND, SOUTH	75	51	62	2 above.	4	15	9 more.

General Remarks.

Weather has again been remarkable for the suddenness and importance of its changes. The beginning of the week was extremely fine and warm; the thermometer rose rapidly, attaining a maximum of 85° at nearly all the British stations on Wednesday and of over 90° at Nottingham and in London, while 95° was recorded at Silloth on Thursday. Towards the close of the period, however, temperature fell as quickly as it had risen, and the maxima registered during Monday were below 60° in most parts of the northern and north-eastern districts, and below 70° even at our central stations. In all places the average for the entire week has been above the mean for the time of year.

Rainfall has been very slight in all the more northern districts, but considerably above the mean in the south, the excess being due in most instances to the very heavy showers which accompanied the thunderstorms of Saturday and Sunday last.

Wind was generally southerly at the commencement of the week, but afterwards shifted to south-east and east, and towards the close of the period had become north-easterly or northerly. It was light or moderate in force throughout.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	83	52	64·3	+7·5	1	1·28	+0·81
	Aberdeen	76	49	61·7	+4·4	1	0·01	−0·48
	Glenalmond	79	48	62·0	+4·4	1	0·31	?
	Leith	80	52	63·2	+5·3	1	0·37	−0·12
2. ENGLAND, N.E.	Shields	76	51	61·1	+2·1	0	—	−0·47
	Durham	87	50	65·0	+5·7	2	0·04	−0·46
	Scarborough	75	54	62·1	+2·5	1	0·06	−0·47
	York	88	51	66·7	+6·8	0	—	−0·51
	Kelstern (Lincolnshire) ℳ	83	51	64·9	+4·5	1	0·03	−0·44
3. ENGLAND, E.	Yarmouth	70	55	62·5	+1·6	2	0·06	−0·49
	Cambridge	87	52	68·1	+6·0	0	—	−0·50
	Audley End (Saffron Walden) ℳ	86	52	67·1	+5·0	1	0·02	?
	Rothamsted	83	50	66·9	+4·2	1	0·07	−0·50
4. MIDLAND COUNTIES	Nottingham	95	53	71·0	+9·9	1	0·25	−0·35
	Leicester	85	54	68·4	+6·4	3	0·15	?
	Shrewsbury ℳ	88	47	66·8	+5·9	0	—	?
	Hereford ℳ	85	53	67·8	+6·5	1	0·12	−0·36
	Cirencester	85	51	68·3	+6·1	2	0·35	−0·24
	Oxford	84	54	67·2	+4·4	2	0·32	−0·19
5. ENGLAND, S.	London	91	54	70·5	+7·7	2	1·10	+0·58
	Marlborough ℳ	85	?54	68·2	+5·6	3	1·63	+1·13
	Strathfield Turgiss ℳ	89	51	69·0	+6·8	3	0·17	−0·31
	Dover	77	58	67·7	+6·5	2	0·31	−0·13
	Hastings	84	57	69·3	+8·0	3	0·61	+0·25
	Hurst Castle	82	58	68·3	+6·9	3	0·62	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	81	50	65·9	+9·3	0	—	?
	Glasgow	85	46	66·2	+8·6	1	0·05	−0·70
	Ardrossan	85	54	66·8	+9·2	1	0·09	−0·49
	Silloth	95	49	66·7	+7·8	1	0·02	−0·48
	Douglas (Isle of Man)	76	49	61·9	+3·1	1	0·02	?
7. ENGLAND, N.W.	Stonyhurst	85	46	65·8	+5·7	0	—	−0·82
	Manchester	85	50	66·4	+5·9	0	—	−0·68
	Liverpool Observatory (Bidston)	85	54	67·4	+7·1	0	—	−0·70
	Holyhead	83	56	65·7	+5·8	1	0·06	−0·32
8. ENGLAND, S.W.	Pembroke	76	55	64·7	+3·7	3	1·57	+1·14
	Portishead	88	55	69·5	+7·4	3	1·84	+1·24
	Falmouth	72	51	62·3	+0·7	5	0·78	+0·18
	Plymouth	82	50	66·0	+4·5	4	0·34	−0·15
9. IRELAND, N.	Dunfanaghy	77	55	64·3	+5·9	4	0·89	?
	Greencastle	77	52	63·7	+5·2	2	0·87	+0·22
	Armagh	76	53	63·1	+4·0	2	0·55	+0·02
	Donaghadee	73	53	62·5	+3·9	1	0·09	?
10. IRELAND, S.	Kingstown	70	58	62·7	+3·0	4	0·38	−0·02
	Parsonstown	75	55	64·1	+4·4	3	1·47	+0·92
	Roche's Point	72	54	62·8	+2·7	3	2·89	+2·28
	Valencia	69	51	59·1	−0·9	4	1·09	+0·31
SCOTLAND, N.	Sumburgh Head	68	45	56·2	+3·4	0	—	−0·28
	Stornoway	70	50	59·2	+4·7	1	0·78	?
	Thurso	81	50	63·7	+9·1	4	0·17	−0·24
	Wick	79	48	62·0	+6·9	0	—	−0·38
——	Scilly (St. Mary's)	73	51	61·3	−0·5	5	1·04	+0·50
	Jersey (Noirmont)	84	53	65·7	+4·0	3	2·02	+1·65

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending July 1, 1878.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[98.—150.—7/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 22.] WEEK ENDING MONDAY, JULY 8, 1878. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	77	40	58	0 (average).	3	2	2 less.
	2. ENGLAND, NORTH-EAST	74	40	59	1 below.	2	1	4 less.
	3. ENGLAND, EAST	76	37	62	2 below.	2	1	5 less.
	4. MIDLAND COUNTIES	†82†	41	61	1 below.	2	1	5 less.
	5. ENGLAND, SOUTH	77	43	61	1 below.	3	3	1 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	77	43	59	1 above.	4	6	2 less.
	7. ENGLAND, NORTH-WEST	71	45	59	1 below.	2	1	6 less.
	8. ENGLAND, SOUTH-WEST	72	51	62	0 (average).	3	2	4 less.
	9. IRELAND, NORTH	71	50	60	1 above.	4	3	4 less.
	10. IRELAND, SOUTH	71	47	61	1 above.	3	3	3 less.

† The maximum of 82° in the Midland Counties was registered at Nottingham only. The readings at the other stations did not exceed 75°.

General Remarks.

Weather during the week has been generally cloudy at our more eastern and northern stations, but finer in the west. Temperature has been a trifle above the mean in Ireland and the west of Scotland, but rather below in most other districts. The maxima were very low at the commencement of the week but were higher towards the close, a reading of 77° being reported from many English stations on the 6th and 7th. On the night of the 3rd the thermometer fell below 40° in "England, East," but no frosts are reported.

Rainfall has been less than the mean everywhere. The deficiency has been greatest (six tenths of an inch) in the north-west of England, and even at the midland and eastern stations it has amounted to five tenths of an inch.

Wind was moderate from the northward on the 2nd and 3rd but on the 4th it backed to S.W. and W., and breezes from those quarters continued until the 7th, when the wind returned to N.W. and N.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	67	43	57·5	+0·7	3	0·37	−0·10
	Aberdeen	72	40	56·2	−1·1	2	0·21	−0·28
	Glenalmond	70	42	57·3	−0·3	3	0·04	?
	Leith	77	47	60·0	+2·1	3	0·15	−0·34
2. ENGLAND, N.E.	Shields	68	44	57·5	−1·5	4	0·29	−0·18
	Durham	74	40	59·3	0·0	2	0·04	−0·46
	Scarborough	72	46	59·3	−0·3	1	0·01	−0·52
	York	70	41	59·5	−0·4	3	0·07	−0·44
	Kelstern (Lincolnshire) ℳ	71	41	58·7	−1·7	2	0·02	−0·45
3. ENGLAND, E.	Yarmouth	74	44	59·5	−1·4	2	0·19	−0·36
	Cambridge	75	39	59·8	−2·3	1	0·03	−0·47
	Audley End (Saffron Walden) ℳ	76	37	59·4	−2·7	2	0·03	?
	Rothamsted	75	41	59·4	−3·3	2	0·05	−0·52
4. MIDLAND COUNTIES	Nottingham	? 82	41	63·4	+2·3	2	0·16	−0·44
	Leicester	72	43	59·3	−2·7	3	0·19	?
	Shrewsbury ℳ	71	42	59·8	−1·1	2	0·10	?
	Hereford ℳ	72	44	60·9	−0·4	0	—	−0·48
	Cirencester	74	43	60·7	−1·5	2	0·05	−0·54
	Oxford	75	46	60·3	−2·5	2	0·06	−0·45
5. ENGLAND, S.	London	77	45	61·2	−1·6	3	0·08	−0·44
	Marlborough ℳ	74	44	60·2	−2·4	3	1·25	+0·75
	Strathfield Turgiss ℳ	77	43	60·5	−1·7	1	0·08	−0·40
	Dover	71	47	61·1	−0·1	3	0·10	−0·34
	Hastings	70	47	59·0	−2·3	3	0·07	−0·29
	Hurst Castle	78	50	61·5	+0·1	2	0·33	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	65	45	57·2	+0·6	5	1·66	?
	Glasgow	68	50	60·6	+3·0	5	0·58	−0·17
	Ardrossan	67	53	59·3	+1·7	3	0·36	−0·22
	Silloth	77	43	61·0	+2·1	3	0·35	−0·15
	Douglas (Isle of Man)	67	49	57·4	−1·4	3	0·16	?
7. ENGLAND, N.W.	Stonyhurst	70	45	58·4	−1·7	4	0·15	−0·67
	Manchester	70	48	58·9	−1·6	2	0·18	−0·50
	Liverpool Observatory (Bidston)	71	52	60·1	−0·2	0	—	−0·70
	Holyhead	67	52	59·6	−0·3	2	0·02	−0·36
8. ENGLAND, S.W.	Pembroke	65	53	60·4	−0·6	4	0·17	−0·26
	Portishead	72	51	62·1	0·0	2	0·10	−0·50
	Falmouth	68	54	61·8	+0·2	3	0·39	−0·21
	Plymouth	72	51	62·4	+0·9	1	0·05	−0·44
9. IRELAND, N.	Dunfanaghy	67	56	60·6	+2·2	4	0·32	?
	Greencastle	69	50	59·4	+0·9	5	0·27	−0·38
	Armagh	68	50	59·4	+0·3	4	0·06	−0·47
	Donaghadee	71	50	59·7	+1·1	2	0·64	?
10. IRELAND, S.	Kingstown	71	53	61·8	+2·1	1	0·06	−0·34
	Parsonstown	71	47	61·8	+2·1	5	0·24	−0·31
	Roche's Point	70	51	61·2	+1·1	4	0·50	−0·11
	Valencia	70	50	60·0	0·0	3	0·24	−0·54
SCOTLAND, N.	Sumburgh Head	57	42	50·9	−1·9	3	0·65	+0·37
	Stornoway	64	48	56·4	+1·9	4	1·78	?
	Thurso	63	46	55·5	+0·9	5	2·30	+1·89
	Wick	65	38	54·5	−0·6	4	1·87	+1·49
——	Scilly (St. Mary's)	69	55	62·0	+0·2	3	0·49	−0·05
	Jersey (Noirmont)	68	53	60·1	−1·6	2	0·24	−0·13

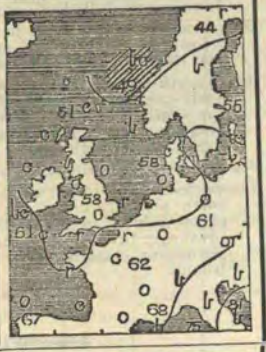
The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

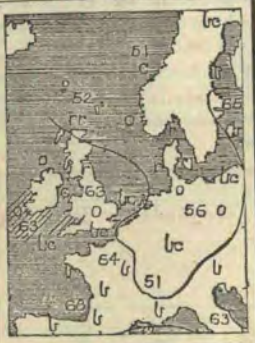
II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending July 8, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.





Weather during the 24 hours succeeding the date of the Charts.

Tuesday, July 2.

Weather fine in Ireland, but very dull over the rest of the United Kingdom, with rain in the south and south-east, and at a few isolated stations elsewhere.

Temperature very low for the time of year, the maximum readings reaching 70° in the south of Ireland only. In London the maximum was only 59°, or 32° colder than on June 26th.

Wind northerly over the United Kingdom, north-westerly in France, Sweden, and Norway, and westerly in Germany; light to moderate in our Islands, but blowing strongly in Scandinavia, and a strong gale at Skudesnaes.

Sea generally moderate in the west and north (but rough at Christiansund); slight elsewhere.

Barometer highest over our Atlantic Coasts, lowest over the Gulf of Bothnia and Northern Russia. A shallow depression in the Channel moving eastwards, and the mercury consequently rising in our Islands during the day.

Wednesday, July 3.

Weather still fine in the west, and improving a little elsewhere, but rain again recorded in the south-east.

Temperature low, but inclined to rise, the maximum values over Central England varying from 63° to 65°, while in the south-west 67° and 68° were reported.

Wind northerly in the north, north-westerly in the south, and westerly in the south-east, but southerly airs setting in at Stornoway in the evening.

Sea rough in the Skager Rack, moderate on our north-east coasts.

Barometer still highest in the west, and rising generally, but slowly. A fall commencing in the extreme north-west of our Islands at evening.

Thursday, July 4.

Weather much finer over England than of late, but overcast in the extreme west and north, with heavy rain in Caithness, the Hebrides, and Shetlands, and a smaller quantity in other parts of Scotland and the west of Ireland.

Temperature risen considerably, reaching 72° in London, and rising above 70° in many other parts of England during the day, and to 75° at Rochefort.

Wind backing in most places; still north-westerly to westerly in the east and south-east, but southerly to south-westerly in the west and north, and blowing freshly at Valentia.

Sea rather rough off the south-west of Ireland in the afternoon.

Barometer now highest over the Bay of Biscay, Channel, and France, but falling generally, most in the north-west. Depressions outside our extreme west and north-west coasts, moving in a north-easterly direction towards Norway.

Friday, July 5.

Weather continues fine at the southern stations, but rather dull in the west and north, with rain in many places, especially in the north of Scotland and in Denmark. Sky very clear in France.

Temperature showing little change; the maxima in England being above 70° in many places, while at Biarritz 86° was recorded.

Wind southerly to south-westerly in the west and north, and blowing strongly in the extreme west; westerly in the east and south, and, though light in the east, blowing freshly in the Channel. Easterly winds prevailing in Spain and the southern parts of France.

Sea rough in the west.

Barometer highest over France, and still falling generally. Depressions still passing by our western and north-western coasts in a north-easterly direction, but only just skirting us, so that the gradients in our Islands continue moderate.

(Continued over.)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, July 6.

Weather clear in France, fine but cloudy in the south of our Islands, and dull elsewhere, with rain in some places.

Temperature rising a little in the south, and reaching 73° to 78° over central England, and 72° at Aberdeen during the day, the nights also being mild generally.

Wind north-westerly at the northern stations, and westerly to south-westerly in the south, but northerly to easterly in the south of France; generally moderate in force, but blowing strongly from west to north-west on the eastern shores of the North Sea.

Sea rather rough in the north, north-west, and south.

Barometer highest in the south-west and south, lowest in the north and north-east, but gradients moderate. A depression lying over Scandinavia, and fresh disturbances advancing towards the same region from the Atlantic. Barometer changing very little and irregularly in our Islands.

Sunday, July 7.

Weather fine in a few localities, but on the whole cloudy and dull, with showers on our western coasts, and in the west of France. Thunder in the north-east of Ireland.

Temperature unsteady in Scotland, but very little change in England, the maximum values varying from 72° to 77°, and the nights remaining warm.

Wind veering to north-west very generally, and continuing light or moderate except on the eastern shores of the North Sea.

Sea very little disturbed, except in the Skager Rack.

Barometer rising briskly on our northern and north-western coasts, falling slightly in France. Two distinct but shallow depressions over Sweden, both travelling slowly to the eastward.

Monday, July 8.

Weather fine generally, but somewhat cloudy during the day. Slight showers of rain fell on our north-west coasts and in the south-west of France, and some rain at Stockholm.

Temperature showing little change in the morning, but the maximum readings rather lower than on the 7th, though still above 70° over England; the succeeding night cool.

Wind generally northerly and light to moderate in force, but drawing rather more towards north-west on the eastern shores of the North Sea; westerly over Germany. Later in the day wind backed towards west and south-west in the north-west, while south-easterly winds showed themselves on our north-east coasts.

Sea moderate to smooth.

Barometer risen generally in our Islands, fallen slightly in France; highest to the westward of Ireland, lowest over Russia and the Gulf of Bothnia, the gradients over Western Europe being slight. During the day the mercury began to fall briskly on our extreme north-west coasts.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Meteorological Office,
116, Victoria Street, S.W.

(Signed) ROBERT H. SCOTT,
Secretary.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[98.—150.—7/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 23.] WEEK ENDING MONDAY, JULY 15, 1878. [*Price 2d.* [*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.

2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).

3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.

4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.

5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.

6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).

7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.

8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.

9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.

10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	76	45	59	1 above.	1	less than ½	5 less.
	2. ENGLAND, NORTH-EAST	73	47	59	2 below.	2	1	5 less.
	3. ENGLAND, EAST	75	45	59	4 below.	1	less than ½	5 less.
	4. MIDLAND COUNTIES	76	41	60	3 below.	1	less than ½	6 less.
	5. ENGLAND, SOUTH	75	47	61	2 below.	2	3	3 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	80	47	59	0 (average).	2	2	6 less.
	7. ENGLAND, NORTH-WEST	71	45	58	3 below.	2	2	5 less.
	8. ENGLAND, SOUTH-WEST	74	50	61	2 below.	2	7	1 more.
	9. IRELAND, NORTH	67	47	58	2 below.	3	1	5 less.
	10. IRELAND, SOUTH	73	46	60	1 below.	2	3	4 less.

General Remarks.

Weather very cloudy at the commencement of the week but much finer towards the close. Temperature below the mean in almost all districts, the maximum readings even at our midland stations scarcely exceeding 75°, while the minima on several occasions were below 50°. The maximum temperature of 80° recorded in "Scotland, W." District was observed at one station only (Silloth), nothing more than 69° being registered at the other stations in the district.

Rainfall considerably below the mean in all districts excepting "England, S.W.," where a very heavy fall occurred on the night of the 12th.

Wind south-westerly on Tuesday the 9th, but subsequently veering to W. and N.W., and becoming northerly at the close of the week. In force, light or moderate generally, but rather fresh breezes prevailed at some of the western stations on the 9th, 10th, and 14th.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	69	49	58·0	+0·1	0	—	−0·55
	Aberdeen	70	49	58·5	+0·2	3	0·12	−0·48
	Glenalmond	71	45	58·0	−0·6	1	0·01	?
	Leith	76	49	61·2	+2·3	0	—	−0·57
2. ENGLAND, N.E.	Shields	66	50	57·4	−2·6	2	0·03	−0·51
	Durham	73	47	60·7	+0·4	2	0·03	−0·54
	Scarborough	67	51	58·5	−2·2	2	0·04	−0·58
	York	72	47	59·6	−1·4	1	0·08	−0·39
	Kelstern (Lincolnshire)* ℔							
3. ENGLAND, E.	Yarmouth	73	50	58·0	−4·5	3	0·16	−0·42
	Cambridge	75	48	60·3	−3·4	0	—	−0·52
	Audley End (Saffron Walden) ℔	75	45	58·9	−4·8	0	—	?
	Rothamsted	73	47	59·5	−4·7	1	0·01	−0·61
4. MIDLAND COUNTIES	Nottingham	76	46	61·5	−0·8	0	—	−0·65
	Loughborough	73	45	59·5	−3·1	1	0·03	?
	Leicester	71	46	59·0	−4·5	0	—	?
	Shrewsbury ℔	72	41	58·0	−4·1	3	0·11	?
	Hereford ℔	73	46	59·0	−3·7	2	0·03	−0·51
	Cirencester	75	49	59·9	−3·8	2	0·14	−0·50
	Oxford	73	50	60·2	−4·1	0	—	−0·54
5. ENGLAND, S.	London	73	50	61·6	−2·7	1	0·03	−0·49
	Marlborough ℔	72	49	60·2	−4·0	2	0·39	−0·16
	Strathfield Turgiss ℔	75	47	60·5	−3·0	2	0·25	−0·27
	Dover	68	52	61·3	−1·4	2	0·14	−0·32
	Hastings	72	50	60·1	−2·7	3	0·19	−0·21
	Hurst Castle	73	52	62·1	−0·7	2	0·48	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	67	47	56·6	−1·0	3	0·74	?
	Glasgow	69	49	59·5	+0·9	0	—	−0·83
	Ardrossan	68	49	59·0	+0·4	2	0·07	−0·56
	Silloth	80	47	63·3	+3·3	1	0·03	−0·53
	Douglas (Isle of Man)	69	48	57·9	−1·9	2	0·02	?
7. ENGLAND, N.W.	Stonyhurst	70	45	57·0	−4·3	4	0·55	−0·38
	Manchester	71	45	57·7	−3·8	3	0·19	−0·56
	Liverpool Observatory (Bidston)	66	52	58·3	−3·2	1	0·07	−0·56
	Holyhead	67	54	59·6	−1·4	0	—	−0·37
8. ENGLAND, S.W.	Pembroke	68	53	58·3	−4·1	2	0·72	+0·23
	Portishead	74	50	60·7	−2·9	2	0·44	−0·28
	Falmouth	66	55	60·6	−2·3	1	0·78	+0·18
	Plymouth	72	55	62·4	−0·2	1	0·71	+0·10
9. IRELAND, N.	Dunfanaghy	62	51	57·6	−1·9	4	0·20	?
	Greencastle	63	50	57·0	−2·5	7	0·34	−0·38
	Armagh	67	47	58·3	−1·9	1	0·01	−0·70
	Donaghadee	66	51	58·6	−1·0	1	0·02	?
10. IRELAND, S.	Kingstown	66	53	59·8	−0·9	2	0·11	−0·34
	Parsonstown	73	46	58·7	−2·0	3	0·22	−0·41
	Roche's Point	73	54	61·9	+0·9	1	0·20	−0·46
	Valencia	68	54	60·3	−0·8	2	0·55	−0·33
SCOTLAND, N.	Sumburgh Head	59	46	52·7	−1·0	6	0·12	−0·16
	Stornoway	64	50	55·5	+0·2	4	0·37	?
	Thurso	63	47	55·1	−0·4	5	0·30	−0·16
	Wick	67	49	55·6	−0·4	3	0·09	−0·30
——	Scilly (St. Mary's)	64	57	61·0	−2·3	2	0·37	−0·19
	Jersey (Noirmont)	69	47	60·2	−2·5	3	0·27	−0·13

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "℔" are in connection with the Meteorological Society.
* The returns for Kelstern have not yet been received (Thursday afternoon).

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending July 15, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, July 9.

Weather still fine in France and at many of our stations, but very dull elsewhere, with rain at Ardrossan, which subsequently extended to several places in the north, and also to our southern counties, but not in any great amount.

Temperature lower than on the 8th, although the highest day readings varied from 70° to 75° over England, giving a large range for the 24 hours.

Wind rather fresh from south-east in the Shetlands and Hebrides, but chiefly moderate from west to south-west in other parts of our Islands; north-westerly in the south of Ireland; and northerly to north-easterly in France. Later in the day the westerly winds blew strongly in the west of Scotland.

Sea moderate to smooth.

Barometer highest (30·3 ins. and upwards) over the Bay of Biscay; lowest in the north. A depression travelling from west to east over the north of Scotland during the day.

Wednesday, July 10.

Weather dull and cloudy generally, with rain in the north, and showers at a few stations in other districts.

Temperature decreasing slowly, the 8h. A.M. readings being below 60° at all but the southern and south-eastern stations, and the maxima below 70° at all but Hurst Castle. In the west of France the maxima 72°.

Wind westerly at our northern and north-eastern stations, and north-westerly in the south, but south-westerly to south-easterly on the eastern shores of the North Sea, and north-easterly to north-westerly in Sweden. The westerly winds were moderate to fresh in force, and gusty at times, but the southerly winds were light.

Sea but little disturbed.

Barometer very unsteady in the north, and falling generally elsewhere. A new depression found near the Shetlands; a secondary disturbance off the south-west of Norway; and a larger depression over the Gulf of Bothnia.

Thursday, July 11.

Weather very cloudy all over Western Europe, with slight rain in the north, and showers in some few other localities.

Temperature rather lower than on the 10th; the 8h. a.m. readings were below 60° all over the Kingdom, and as low as 53° in the north of Scotland. Highest readings recorded over the British Isles during the day 68° to 69°; at Pembroke the maximum was 59°, and at Thurso 56°.

Wind westerly to north-westerly, and moderate in force, but blowing rather strongly from west-north-west at Kingstown in the afternoon.

Sea moderate to smooth.

Barometer still highest to the south-west of our Islands, lowest over Northern Europe. Two depressions over Scandinavia and the Gulf of Bothnia, and though gradients (for north-westerly winds) were moderate over our Islands, local irregularities were noticed in several places.

Friday, July 12.

Weather fine but cloudy over Western Europe during the earlier part of the day. Sky clearing remarkably in the north later on, but becoming unsettled in the south-west. A considerable fall of rain over the southern parts of Ireland and England and at some of the Scandinavian stations also.

Temperature scarcely changed beyond a slight rise in the south. Readings at 8h. a.m. above 60° at the southern stations only. Maxima considerably below 70° in most places.

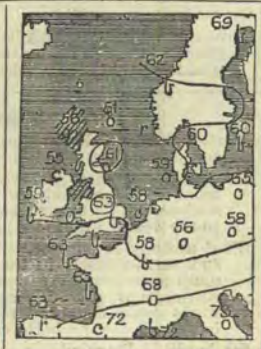
Wind generally moderate, from north in the extreme north of Scotland, from west-north-west in the other parts of our Islands, and from north in Denmark; a south-westerly breeze in the south of Ireland, but not on our other coasts.

Sea moderate in the south-west, smooth elsewhere.

Barometer highest (30·1 ins.) over the Bay of Biscay, lowest (29·5 ins.) over the Baltic, with secondary disturbances over the Sound, and north-west of Norway. Another small disturbance passing from north-west to south-east near Valentia during the day.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, July 13. *Weather* fine and dry over nearly the whole of the United Kingdom, but misty in the north and west of France, foggy and wet at Scilly. *Temperature* fallen somewhat in the north, and changed little elsewhere. Very cold for the time of year, but rising above 70° in a few localities during the day. Maxima 71° at Cambridge, 72° at Oxford and Leith, 73° in London and at Roche's Point, and 74° at Nottingham, but only 57° at Wick, 60° at Shields, and 64° at Dover. *Wind* variable; northerly at all our northern and eastern stations, north-easterly to easterly in the south, and south-easterly in the west of France. On the eastern shores of the North Sea wind northerly to westerly, but south-westerly at the Scaw and at Wisby. *Sea* very little disturbed. *Barometer* high (30·1 ins.) in the south of France, and also over Ireland and the west of Scotland. A depression over the south of Norway, and another (small one) near Scilly, and moving south-eastwards.
		**Sunday, July 14.** *Weather* fine generally, but cloudy over the northern parts of the Kingdom, with slight rain in a few localities; clear in the south and over France. Air somewhat close in London during the day, and heavy clouds visible at times. *Temperature* risen a little, but still low generally, the 8h. a.m. readings exceeding 60° at the extreme southern stations only. The maxima rising above 70° in most parts of Great Britain, and reaching 76° at Leith and Nottingham. *Wind* north-westerly in the north, northerly in the south, and north-easterly over France; generally moderate in force, but blowing freshly in a few places—*e.g.*, Stornoway, Donaghadee, and Plymouth. *Sea* moderate, except at Stornoway and Donaghadee. *Barometer* highest (30·25 ins.) in the south of Ireland, lowest over the Baltic. A secondary depression found over the south of Sweden, while the depression noticed off Scilly on the 13th has moved south-eastwards to the south of France. Barometer rising generally in our Islands all day.
		Monday, July 15. *Weather* very fine and bright in the Channel and France, fine but very cloudy over the United Kingdom and W. of Norway; rain at Christiansund. *Temperature* still inclined upwards, except in Scotland and Norway; the maxima over England varying from 71° to 76°. *Wind* backing towards W. at the northern stations, and falling light and variable over our eastern counties, but remaining northerly in the Channel, and north-easterly in France. Light south-easterly winds felt along our E. coasts in the afternoon. *Sea* rough in the far N. *Barometer* beginning to fall somewhat in Scotland, but a further slight rise reported elsewhere. The anticyclone in the S.W. spreading eastwards over England, but some *very* slight disturbances still noticeable.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 391.—150.—7/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.
PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL;
AND E. STANFORD, CHARING CROSS.

VOL. I. No. 24.] WEEK ENDING MONDAY, JULY 22, 1878. [*Price 2d.*
[*Annual subscription, post paid*, 12*s.* 6*d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.

2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).

3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.

4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.

5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.

6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).

7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.

8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.

9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.

10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857–69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866–75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	83	50	65	7 above.	1	less than ⅓	6 less.
	2. ENGLAND, NORTH-EAST	89	48	67	7 above.	1	less than ⅓	5 less.
	3. ENGLAND, EAST	86	45	67	4 above.	1	2	3 less.
	4. MIDLAND COUNTIES	91	50	69	6 above.	1	1	5 less.
	5. ENGLAND, SOUTH	88	47	69	5 above.	1	1	3 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	88	48	65	6 above.	1	1	7 less.
	7. ENGLAND, NORTH-WEST	85	54	67	5 above.	1	less than ⅓	7 less.
	8. ENGLAND, SOUTH-WEST	85	55	69	6 above.	2	3	3 more.
	9. IRELAND, NORTH	76	51	63	3 above.	1	less than ⅓	7 less.
	10. IRELAND, SOUTH	83	56	67	6 above.	0	—	7 less.

General Remarks.

Weather extremely fine and warm over the whole country. Temperature from three to seven degrees above the mean for the week; the maxima exceeded 80° on many occasions, and reached 91° at Nottingham on the 19th and 90° on the 20th. The nights were rather cool over England at the commencement of the period, but were much warmer towards its close.

Rainfall extremely slight. At many stations there was a complete absence of rain, but on the 22nd thunderstorms, accompanied by heavy showers, were felt in many parts of the southern districts.

Wind light throughout. In direction generally westerly in the north and easterly or north-easterly in the south, but at the close of the week it was becoming more variable.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	76	50	64·6	+6·7	1	0·02	−0·53
	Aberdeen	81	56	65·7	+7·4	2	0·03	−0·57
	Glenalmond	80	52	65·2	+6·6	2	0·01	?
	Leith	83	55	65·7	+6·8	0	—	−0·57
2. ENGLAND, N.E.	Shields	82	52	64·8	+4·8	0	—	−0·54
	Durham	89	49	69·7	+9·4	1	0·01	−0·56
	Scarborough	81	53	66·7	+6·0	0	—	−0·62
	York	85	51	69·4	+8·4	0	—	−0·47
	Kelstern (Lincolnshire) ℳ	82	48	65·9	+4·4	1	0·13	−0·36
3. ENGLAND, E.	Yarmouth	72	54	63·7	+1·2	0	—	−0·58
	Cambridge	86	49	69·0	+5·3	1	0·69	+0·17
	Audley End (Saffron Walden) ℳ	84	45	67·0	+3·7	1	0·02	?
	Rothamsted	82	50	68·5	+4·3	1	0·01	−0·61
4. MIDLAND COUNTIES	Nottingham	91	50	71·4	+9·1	0	—	−0·65
	Loughborough	89	52	70·3	+7·7	1	0·06	?
	Leicester	84	51	68·2	+4·7	1	0·27	?
	Shrewsbury ℳ	85	50	67·2	+5·1	0	—	?
	Hereford ℳ	84	51	69·0	+6·3	1	0·02	−0·52
	Cirencester	85	51	69·6	+5·9	1	0·15	−0·49
	Oxford	83	52	68·8	+4·5	1	0·03	−0·51
5. ENGLAND, S.	London	88	50	70·7	+6·4	0	—	−0·52
	Marlborough ℳ	84	50	68·5	+4·3	1	0·23	−0·32
	Strathfield Turgiss ℳ	87	47	68·6	+5·1	1	0·15	−0·37
	Dover	74	56	67·3	+4·6	1	0·02	−0·42
	Hastings	80	54	68·2	+5·4	0	—	−0·40
	Hurst Castle	81	54	69·5	+6·7	1	0·05	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	75	52	60·4	+2·8	4	0·46	?
	Glasgow	78	48	64·2	+5·6	0	—	−0·83
	Ardrossan	79	55	64·0	+5·4	3	0·05	−0·58
	Silloth	88	55	69·8	+9·8	0	—	−0·56
	Douglas (Isle of Man)	78	52	64·5	+4·7	0	—	?
7. ENGLAND, N.W.	Stonyhurst	85	54	67·3	+6·0	1	0·01	−0·92
	Manchester	84	56	67·3	+5·8	0	—	−0·75
	Liverpool Observatory (Bidston)	84	57	66·9	+5·4	1	0·01	−0·91
	Holyhead	78	58	64·4	+3·4	0	—	−0·37
8. ENGLAND, S.W.	Pembroke	80	58	68·4	+6·0	2	0·65	+0·16
	Portishead	85	55	69·9	+6·3	1	0·10	−0·62
	Falmouth	78	56	67·8	+4·9	2	0·19	−0·41
	Plymouth	81	55	68·9	+6·3	2	0·43	−0·18
9. IRELAND, N.	Dunfanaghy	70	56	61·9	+2·4	3	0·04	?
	Greencastle	73	51	62·3	+2·8	1	0·01	−0·71
	Armagh	76	55	65·4	+5·2	0	—	−0·71
	Donaghadee	73	52	61·6	+2·0	0	—	?
10. IRELAND, S.	Kingstown	72	58	64·4	+3·7	0	—	−0·45
	Parsonstown	83	57	68·6	+7·9	0	—	−0·63
	Roche's Point	80	58	68·1	+7·1	0	—	−0·66
	Valencia	80	56	67·4	+6·3	0	—	−0·88
SCOTLAND, N.	Sumburgh Head	59	45	54·1	+0·4	7	0·68	+0·40
	Stornoway	67	51	59·2	+3·9	2	0·15	?
	Thurso	70	50	59·9	+4·4	1	0·04	−0·42
	Wick	76	47	61·0	+5·0	1	0·06	−0·33
——	Scilly (St. Mary's)	72	59	65·9	+2·6	1	0·06	−0·50
	Jersey (Noirmont)	79	57	67·9	+5·2	2	0·34	−0·06

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

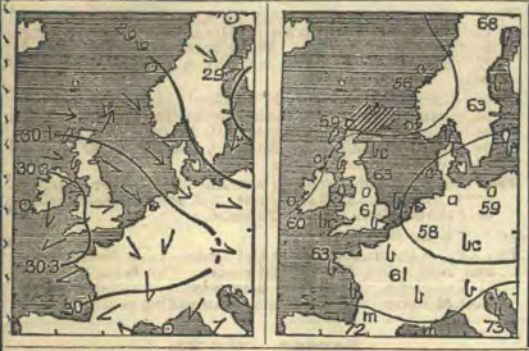
II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending July 22, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, July 16.

Weather fine generally, especially in the east and south, but slight showers of rain fell in the extreme north of Scotland later in the day.

Temperature increasing considerably, the thermometer rising to a maximum of 78° at Nottingham and in London, and 72° in the east of Scotland during the afternoon.

Wind light from west and west-north-west over the greater part of the United Kingdom, and fresh from the same quarter in Denmark and the west of Norway; calm in the Channel; and light easterly in France.

Sea rather rough in the extreme north-west.

Barometer highest (30·3 ins. and upwards) in the south and south-west of our Islands; lowest over Russia and the Gulf of Bothnia; but gradients slight everywhere, and very little change occurring during the day.

Wednesday, July 17.

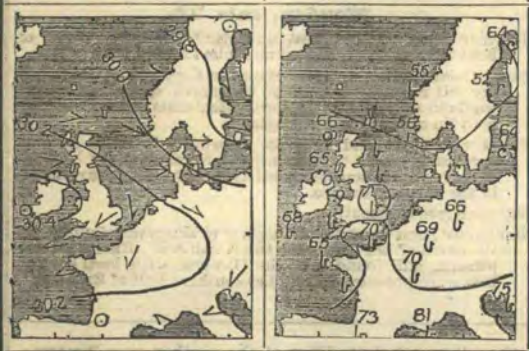
Weather remaining fine, bright, and summerlike in most places, but still cloudy in the north-west.

Temperature continuing to increase, especially over France and England; the shaded thermometer rising to between 80° and 83° over the inland parts of England generally, and to 86° at Nottingham.

Wind veering towards north-west in the north, and moderating a little; while the north-easterly wind in the south tends to spread northwards over the south of England. Strong west to north-west winds felt on the eastern shores of the North Sea.

Sea slight, except at some of the most northern stations.

Barometer still highest in Ireland. A depression in the far north, passing eastwards over Scandinavia. The mercury falling in the south, rising in the north.



Thursday, July 18.

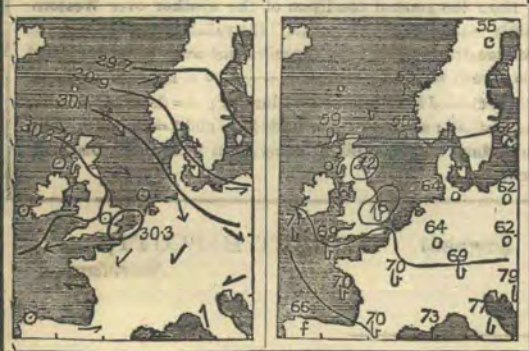
Weather remaining fine and bright everywhere in our Islands, but dull and rainy in Scandinavia.

Temperature still increasing, the maxima being as high as 84° to 85° over England, 88° at Nottingham, and 100° at Rochefort.

Wind north-westerly on our northern coasts, northerly in the east, and north-easterly to easterly in the south. Strong north-westerly winds still felt in Norway and Denmark.

Sea moderate to smooth on our coasts, but rough at Sumburgh Head and on the Danish coasts.

Barometer falling a little at all but our northern stations. Readings highest in Ireland, and the area of highest pressure inclined to move northwards.



Friday, July 19.

Weather becoming foggy on our north-west coasts, but remaining dry and summerlike elsewhere. Rain falling in Norway in the course of the day.

Temperature still rising, and reaching 91° at Nottingham, 88° in London, and 91° to 100° in the west of France. [Paris does not report maximum temperatures.]

Wind strong to a gale from west-north-west on the eastern shores of the German Ocean, light north-westerly to northerly in the north of our Islands, north-easterly to easterly in the south.

Sea high in the Skager Rack, and rough at our own northern stations.

Barometer still falling, except in the north; readings highest in the west and north-west, but local irregularities in pressure appearing in some places.

(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, July 20.

Weather less settled. Sky becoming more cloudy in the west and north, and foggy in the north-east. A little more rain in the west of Norway. Thunder storms experienced in the south-west and south, but with a singular absence of rain.

Temperature fallen suddenly in Scotland: elsewhere still very high, and air oppressive in the south. The maximum again as high as 90° at Nottingham, while 80° to 84° was recorded over other inland parts of England, and 90° to 95° in some parts of the west of France.

Wind becoming more variable; a south-westerly breeze appearing in the south-west of France, and south-easterly winds over the southern parts of England.

Sea very little disturbed.

Barometer very uniform over the British Isles, Netherlands, and North Sea, the highest reading of all being 30·23 ins. at Yarmouth. A shallow depression appearing over the west of France and subsequently spreading northwards.

Sunday, July 21.

Weather very fine, but getting a little cooler in our Islands. Thunderstorms at some isolated places in the south and south-east towards night.

Temperature much lower on our north-east coasts and in the west of France, but rising to between 80° and 85° over England and to 89° at Nottingham, though (excepting at Rochefort) not rising above 75° or 77° at the western French stations.

Wind very light generally and variable, but still north-easterly to easterly over the south of England; westerly to southerly in the north of France. In force gusty at times. Moderate to strong westerly breezes again reported to the eastward of the North Sea.

Sea moderate to smooth.

Barometer highest over our Islands and the North Sea, but readings irregular. A shallow depression lying over the English Channel.

Monday, July 22.

Weather clear in the west but cloudy in many parts of England and Scotland, and much less settled than of late.

Temperature fallen several degrees in the north of England, the fall recently noticed in the north spreading southwards in an irregular manner. Maximum values still 80° to 83° in several parts of England.

Wind very light and variable, drawing into south on our north-west coasts towards night. North-easterly breezes prevalent at our southern stations, and westerly to southerly in the north of France.

Sea moderate to smooth.

Barometer risen in north and highest readings now found over the north of our Isles and the North Sea. Elongated depression still found over the Channel, with local irregularities in pressure over all the southern half of England.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 391.—150.—7/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 25.] WEEK ENDING MONDAY, JULY 29, 1878. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857–69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866–75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	73	45	59	1 above.	3	3	3 less.
	2. ENGLAND, NORTH-EAST	74	41	60	1 below.	5	6	1 more.
	3. ENGLAND, EAST	73	47	61	2 below.	4	7	3 more.
	4. MIDLAND COUNTIES	78	44	61	1 below.	4	13	6 more.
	5. ENGLAND, SOUTH	79	45	64	1 above.	3	4	0 (average).
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	80	44	61	2 above.	1	2	6 less.
	7. ENGLAND, NORTH-WEST	76	46	61	0 (average).	3	6	2 less.
	8. ENGLAND, SOUTH-WEST	78	48	63	1 above.	4	6	0 (average).
	9. IRELAND, NORTH	80	45	59	0 (average).	3	6	6 less.
	10. IRELAND, SOUTH	81	50	62	1 above.	4	12	5 more.

General Remarks.

Weather cloudy throughout. Temperature a little below the mean in England but a trifle above in Scotland and Ireland. The maxima varied between 73° and 80°, the latter value being attained at some of the Irish stations and in "Scotland, W." on Tuesday the 23rd. The nights have been generally mild.

Rainfall a little below the mean in the northern and north-western districts, but above elsewhere. The midland counties exhibit a large excess owing to a severe downpour which accompanied the thunderstorm of the 24th.

Wind at the commencement of the period was north-westerly in the west, but easterly in the east; towards the end of the week the north-westerly current extended over the whole country. In force it has been light to moderate generally.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	73	50	59·7	+2·1	2	0·64	+0·04
	Aberdeen	69	48	57·9	0·0	4	0·13	−0·54
	Glenalmond	68	45	57·4	−0·8	3	0·26	?
	Leith	69	51	60·3	+1·7	4	0·19	−0·38
2. ENGLAND, N.E.	Shields	66	48	58·2	−1·3	4	0·22	−0·32
	Durham	73	42	59·9	−0·4	4	0·11	−0·45
	Scarborough	67	52	59·9	−0·5	3	0·21	−0·35
	York	74	41	61·0	+0·4	6	1·52	+1·01
	Kelstern (Lincolnshire) ℳ	74	49	59·4	−1·8	6	1·00	+0·49
3. ENGLAND, E.	Yarmouth	68	53	60·8	−1·3	5	1·46	+0·97
	Cambridge	73	50	62·2	−0·9	3	0·21	−0·24
	Audley End (Saffron Walden) ℳ	73	47	61·4	−1·9	2	0·34	?
	Rothamsted	72	47	61·3	−2·4	5	0·60	+0·05
4. MIDLAND COUNTIES	Nottingham	78	51	63·3	+1·4	5	2·44	+1·80
	Loughborough	74	53	62·1	0·0	4	1·16	?
	Leicester	71	53	61·2	−1·6	4	1·58	?
	Shrewsbury ℳ	73	45	60·0	−1·7	4	1·81	?
	Hereford ℳ	72	44	57·6	−4·6	3	0·46	−0·05
	Cirencester	76	47	62·0	−1·1	3	0·71	+0·07
	Oxford	72	48	61·7	−2·0	3	1·07	+0·57
5. ENGLAND, S.	London	76	50	65·7	+1·8	4	0·34	−0·14
	Marlborough ℳ	75	45	62·8	−1·0	2	0·74	+0·19
	Strathfield Turgiss ℳ	79	45	64·7	+1·3	2	0·39	−0·06
	Dover	72	55	64·4	+1·8	4	0·54	+0·07
	Hastings	76	53	62·9	+0·4	4	0·46	+0·04
	Hurst Castle	75	50	64·2	+1·3	1	0·02	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	78	45	59·7	+2·4	0	—	?
	Glasgow	72	51	60·9	+2·5	1	0·01	−0·85
	Ardrossan	78	48	61·3	+2·9	3	0·26	−0·50
	Silloth	80	44	63·2	+3·7	1	0·30	−0·33
	Douglas (Isle of Man)	68	45	58·2	−1·5	1	0·58	?
7. ENGLAND, N.W.	Stonyhurst	73	46	59·7	−1·2	4	0·43	−0·55
	Manchester	71	51	60·8	−0·3	2	0·42	−0·31
	Liverpool Observatory (Bidston)	72	54	61·5	+0·5	3	0·97	+0·25
	Holyhead	76	55	62·6	+2·9	2	0·47	0·00
8. ENGLAND, S.W.	Pembroke	70	53	61·5	−0·2	3	0·20	−0·34
	Portishead	78	48	63·4	+0·4	4	1·25	+0·58
	Falmouth	70	57	63·0	+0·4	6	0·60	−0·02
	Plymouth	72	54	64·7	+2·3	4	0·26	−0·33
9. IRELAND, N.	Dunfanaghy	79	52	60·0	+1·1	3	0·87	?
	Greencastle	80	45	59·8	+0·9	3	0·12	−0·67
	Armagh	75	47	59·2	−0·6	2	0·10	−0·57
	Donaghadee	67	47	57·9	−1·5	3	1·42	?
10. IRELAND, S.	Kingstown	70	53	61·0	+0·8	4	0·27	−0·23
	Parsonstown	81	50	62·5	+2·3	3	2·10	+1·38
	Roche's Point	74	55	63·1	+2·3	3	1·46	+0·73
	Valencia	69	50	60·5	−0·2	4	0·80	−0·10
SCOTLAND, N.	Sumburgh Head	62	47	54·6	+0·5	3	0·24	−0·16
	Stornoway	70	46	56·9	+1·8	1	0·12	?
	Thurso	68	50	58·6	+3·0	3	0·25	−0·31
	Wick	65	48	56·9	+0·9	2	0·13	−0·38
—	Scilly (St. Mary's)	77	57	63·9	+0·8	6	0·96	+0·43
	Jersey (Noirmont)	70	54	62·8	+0·1	5	0·48	+0·02

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending July 29, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, July 23.

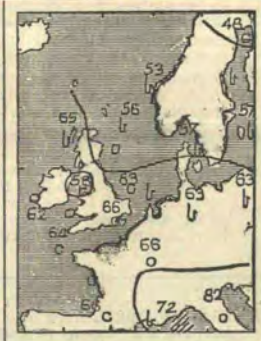
Weather clear in Ireland and on the eastern shores of the North Sea; cloudy over Great Britain and the greater part of France, with rain in several places during the day.

Temperature inclined to fall briskly, but rising to 80° in the north of Ireland during the hottest part of the day.

Wind very variable; fresh from the northward in Denmark and Norway, east over England, but west over the northern parts of France. In Scotland and the north of Ireland southerly and easterly breezes reported.

Sea rather rough over the west of Norway.

Barometer high in the north, and rather so over the south-west parts of France, but lower to the westward of Ireland and over North Germany. The mercury falling generally during the day, and winds becoming very variable.



Wednesday, July 24.

Weather dull and unsettled, with thunderstorms in many parts of the Kingdom. More than two inches of rain at Nottingham, 0·9 in. at Donaghadee and the extreme west and south-west of London, 0·8 in. at Liverpool, and 0·7 in. at Oxford.

Temperature changing little and irregularly, but rather lower generally than on the 23rd.

Wind variable; still westerly to north-westerly in France and Ireland, and also in the Channel, but light from the eastward in Scotland and the east of England.

Sea rough at the mouth of the Channel.

Barometer lower everywhere than on the 23rd. A tongue of low pressure extending in a south-easterly direction from the Atlantic over the British Isles, and moving laterally (but *very* slowly) to the north-eastward.

Thursday, July 25.

Weather still dull, except on the eastern shores of the North Sea, and showery in all parts of the United Kingdom. Thunderstorms occurring in many parts of England and Holland during the day, those at the south-eastern stations being especially severe. Rainfall 2·6 ins. at the Helder, 0·8 in. at Yarmouth, 0·6 in. at Nairn, and 0·5 in. at York.

Temperature still lower than on the 24th.

Wind the north-westerly wind gradually spreading over the country, while the easterly and south-easterly breezes are felt only on our north-east coasts, and on the eastern shores of the German Ocean.

Sea moderate to smooth.

Barometer highest at the extreme south-western and north-eastern stations. The tongue of low readings noticed yesterday being now over Scotland and the northern and eastern parts of England. The mercury unsteady generally.

Friday, July 26.

Weather still cloudy and unsettled, with rain in the south-west, fog and haze in the north-east. Showers of rain in several places (0·7 in. at Roche's Point), and thunderstorms over the south-eastern counties.

Temperature very little changed, but the tendency still to decrease in many places. The maximum values very little above 70° in any part of the Kingdom; and as low as 64° or 65° in the north.

Wind light from between north and west, but still easterly on the eastern shores of the North Sea. Strong north-west winds setting in over the south of France.

Sea rough at Scilly.

Barometer inclined to rise in our islands and to fall in Norway and Denmark. The tongue of low pressure now found over the North Sea, with local irregularities (on its western side) over the British Isles.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, July 27. *Weather* very little changed from that of Friday, but inclined to improve generally in the latter part of the day. Very little rain reported except in the south of Ireland and at some of our south-eastern stations. *Temperature* remaining low generally. *Wind* drawing more northerly on the whole and freshening a good deal locally in the Irish Sea. South-easterly and easterly breezes still felt in Norway and Denmark. A north-west gale in the south of France. Light variable breezes appearing in Ireland at evening. *Sea* remaining rough in the south-west and running high in the Mediterranean. *Barometer* rising all over the United Kingdom until the evening, when a fall set in over Ireland. The tongue of low pressure, recently noticed, now found over the west of Norway.
		Sunday, July 28. *Weather* finer generally over the United Kingdom, but rainy in the south-west of England, and very rainy in the north-west of France and in Holstein. *Temperature* showing no change of importance, though unsteady in the south-west. *Wind* freshening from east and south-east on our south-west coasts, while light northerly winds prevail in Scotland and variable (but chiefly easterly) breezes over England. *Sea* rough at the mouth of the channel and on the south coast of France. *Barometer* high (rather above 30 ins.) over the north of Scandinavia and also over the west of France, very uniform over the British Isles. A shallow depression over Denmark at 8h. a.m., and a deeper one off our south-west coasts, travelling northwards during the day.
		Monday, July 29. *Weather* very much finer over the United Kingdom than of late, but still cloudy in many parts of England and Scotland as well as on the eastern shores of the North Sea and in the north-west of France. *Temperature* decidedly lower than on the 28th, the maximum readings being below 70°, except over our most southern counties while the minima during the ensuing night were very low (46° in London and 48° at Nottingham). *Wind* northerly in our northern districts, drawing into north-east in the south and to east at our south-western stations, but light to moderate in force generally. To the eastward of the North Sea an altogether separate circulation in progress giving fresh east to north-east winds in the Skager Rack and a north-westerly breeze in North Germany. *Sea* little disturbed. *Barometer* rising in our Islands but falling little over the Bay of Biscay. Readings highest (above 30·1 ins.) off our west and north-west coasts, lowest over North Germany.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ➔ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 391.—150.—8/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 26.] WEEK ENDING MONDAY, AUGUST 5, 1878. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	77	41	59·5	1 above.	2	2	5 less.
	2. ENGLAND, NORTH-EAST	75	43	59·8	1 below.	3	12	7 more.
	3. ENGLAND, EAST	80	45	62·1	1 below.	5	6	1 more.
	4. MIDLAND COUNTIES	77	42	61·4	1 below.	4	14	7 more.
	5. ENGLAND, SOUTH	81	46	62·5	1 below.	4	11	7 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	79	45	63·6	5 above.	1	2	5 less.
	7. ENGLAND, NORTH-WEST	74	46	61·9	1 above.	3	7	1 less.
	8. ENGLAND, SOUTH-WEST	75	50	62·3	0 (average).	3	6	0 (average).
	9. IRELAND, NORTH	78	47	61·7	3 above.	3	3	6 less.
	10. IRELAND, SOUTH	76	52	63·0	3 above.	2	7	0 (average).

General Remarks.

Weather has been unsettled. Temperature has been below the average in England and above in Scotland and Ireland, the greatest departure being in "Scotland, W." The maximum readings reached 80° in "England, E." and "S.", and varied between 74° and 79° in the other districts. The nights were rather cold on the first few days.

Rainfall more than the mean in England and "Ireland, S.", less elsewhere. Sharp thunderstorms have occurred over the greater part of the kingdom during the last few days, causing heavy showers locally.

Wind was northerly during the early part of the period, but subsequently became easterly (N.E. to S.E.) It blew freshly at times.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	75	47	60·5	+2·9	1	0·05	−0·55
	Aberdeen	69	42	57·7	−0·2	2	0·04	−0·63
	Glenalmond	77	41	60·2	+2·0	2	0·34	?
	Leith	74	44	59·5	+0·9	3	0·27	−0·30
2. ENGLAND, N.E.	Shields	64	48	58·4	−1·1	3	1·30	+0·76
	Durham	73	43	60·0	−0·3	3	1·79	+1·23
	Scarborough	65	52	59·6	−0·8	3	1·16	+0·60
	York	75	45	61·7	+1·1	3	0·67	+0·16
	Kelstern (Lincolnshire) ⁂	72	49	59·4	−1·8	5	1·16	+0·65
3. ENGLAND, E.	Yarmouth	67	54	60·9	−1·2	4	0·60	+0·11
	Cambridge	80	49	63·2	+0·1	6	0·59	+0·14
	Audley End (Saffron Walden) ⁂	79	45	62·2	−1·1	6	0·62	?
	Rothamsted	76	46	61·9	−1·8	3	0·72	+0·17
4. MIDLAND COUNTIES	Nottingham	77	44	61·7	−0·2	4	1·48	+0·84
	Loughborough	77	48	63·1	+1·0	4	1·25	?
	Leicester	75	46	61·8	−1·0	4	2·62	?
	Shrewsbury ⁂	75	42	59·4	−2·3	4	0·42	?
	Hereford ⁂	73	48	60·9	−1·3	4	1·54	+1·03
	Cirencester	73	46	60·8	−2·3	3	0·68	+0·04
	Oxford	74	49	61·9	−1·8	4	1·52	+1·02
5. ENGLAND, S.	London	81	46	64·0	+0·1	4	2·19	+1·71
	Marlborough ⁂	75	46	60·9	−2·9	3	0·59	+0·04
	Strathfield Turgiss* ⁂							
	Dover	71	53	62·3	−0·3	4	0·57	+0·10
	Hastings	74	51	61·8	−0·7	5	1·53	+1·11
	Hurst Castle	73	52	63·5	+0·6	3	0·51	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	79	46	64·3	+7·0	0	—	?
	Glasgow	75	50	62·4	+4·0	1	0·05	−0·81
	Ardrossan	78	51	64·9	+6·5	1	0·07	−0·69
	Silloth	79	45	62·6	+3·1	3	0·58	−0·05
	Douglas (Isle of Man)	73	42	60·1	+0·4	1	0·42	?
7. ENGLAND, N.W.	Stonyhurst	74	46	60·6	−0·3	4	0·75	−0·23
	Manchester	73	49	61·4	+0·3	4	0·84	+0·11
	Liverpool Observatory (Bidston)	74	52	62·7	+1·7	3	0·82	+0·10
	Holyhead	71	55	62·8	+2·2	2	0·24	−0·23
8. ENGLAND, S.W.	Pembroke	71	53	62·7	+1·0	2	0·88	+0·34
	Portishead	75	50	62·3	−0·7	3	0·67	0
	Falmouth	69	54	61·3	−1·3	3	0·53	−0·09
	Plymouth	74	50	63·0	+0·6	3	0·35	−0·24
9. IRELAND, N.	Dunfanaghy	74	55	64·5	+5·6	2	0·61	?
	Greencastle	78	47	62·4	+3·5	3	0·10	−0·69
	Armagh	72	48	60·8	+1·0	3	0·19	−0·48
	Donaghadee	67	47	59·2	−0·2	3	0·15	?
10. IRELAND, S.	Kingstown	67	54	60·8	+0·6	3	0·64	+0·14
	Parsonstown	76	54	65·0	+4·8	1	0·07	−0·65
	Roche's Point	75	54	63·4	+2·6	2	0·63	−0·10
	Valencia	73	52	62·7	+2·0	3	1·39	+0·49
SCOTLAND, N.	Sumburgh Head	65	46	55·2	+1·1	0	—	−0·40
	Stornoway	69	45	57·4	+2·3	0	—	?
	Thurso	72	45	58·0	+2·4	0	—	−0·56
	Wick	74	44	57·7	+1·7	0	—	−0·51
——	Scilly (St. Mary's)	68	58	62·1	−0·6	1	0·07	−0·46
	Jersey (Noirmont)	72	55	62·9	+0·2	2	0·11	−0·35

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "⁂" are in connection with the Meteorological Society.
* The returns from Strathfield Turgiss not yet received.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending August 5, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

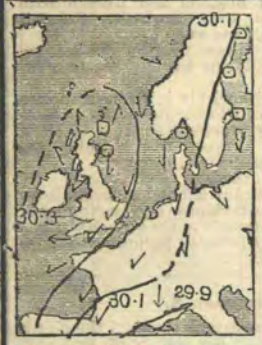
Tuesday, July 30.

Weather fine generally but rather cloudy in the east and north of England and in North Germany. Slight rain in the south-east of England.

Temperature differing little from that of the 29th, the maximum readings rising to between 70° and 74° at the western stations, but not above 68° at Nottingham and 70° in London.

Wind calm in Scotland, fresh from the northward on our east coast, moderate from north-east in the Channel and France, and light from north-north-east in Ireland. Light southerly airs appearing in the west of Scotland at evening.

Barometer highest in the west and north, lowest over Spain and Germany, but gradients very slight except over the North Sea. Mercury rising very slowly during the day.



Wednesday, July 31.

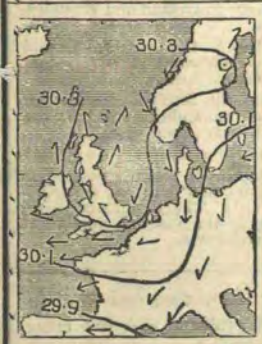
Weather fine generally and clear except at the eastern, south-eastern, and central stations.

Temperature rather higher at 8h. a.m. than at the same hour on the 30th, especially in Ireland, but the maximum readings very low (66° to 69°) over the inland parts of England, while in the north of Ireland they rose to 78°, and at the Danish stations to 77°.

Wind becoming easterly to southerly in the west and north-west, but remaining northerly in the east and north-easterly in the south, and blowing a little freshly in some places.

Sea slight or smooth generally.

Barometer uniformly high (between 30·3 ins. and 30·4 ins.) over the United Kingdom, but gradients for north-easterly winds prevailing in France. The glass falling in the west later in the day, and the fall gradually spreading eastwards.



Thursday, August 1.

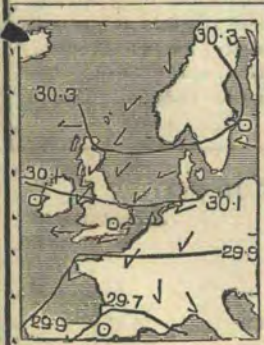
Weather showing very little change, the air being dry generally, and the sky clear except over the central and southern parts of England.

Temperature rather higher over England during the daytime than on the 31st of July; but the maxima still highest on our north-west coasts and in Denmark.

Wind fresh from the eastward at all the southern and south-western stations; very light from the south-eastward in the north. The easterly wind subsequently blowing a gale in several parts of the Channel, especially at Scilly.

Sea rough in the south.

Barometer falling briskly in the south and south-west, and rising in the far north; but the gradients for easterly winds in the south never very steep.



Friday, August 2.

Weather overcast over the greater part of England and the Channel, with drizzling rain for a time in the south-eastern counties, and a great deal of haze in the north and west. Thunderstorms in the south of France during the day.

Temperature not altered very much, but slightly cooler in most places; the maximum values varying from 70° to 75° over England.

Wind moderate to fresh from the north-eastward or eastward over the whole of Western Europe, but light and variable in the northern parts of Scandinavia; the north-easterly wind subsequently becoming strong at the English stations and in the Channel.

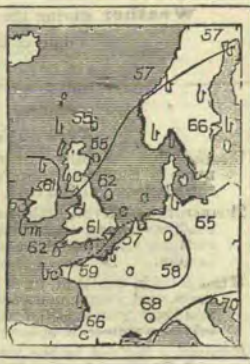
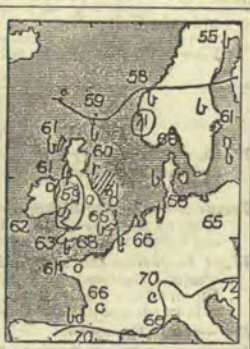
Sea rough in the south.

Barometer highest in the north, lowest in the south, and falling generally. A depression advancing towards France from the southward.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.
		**Saturday, August 3.** *Weather* fine on the eastern shores of the North Sea, and also in Ireland and the west of Scotland, but dull over England and France, with rain in some places and thunder in the Straits of Dover. Severe thunderstorms in the southern counties later in the day, with 1·7 ins. of rain in London. *Temperature* changing little and irregularly. *Wind* strong from the north-eastward over England and the English and St. George's Channels, and at times blowing a slight gale in the squalls, but moderating towards night. *Sea* rough both on our north-eastern and western coasts. *Barometer* still highest (30·3 ins.) in the north. The centre of a large depression over France and moving northwards causing a continuous fall of the mercury in our Islands.
		Sunday, August 4. *Weather* very fine over Scandinavia, Denmark, and the north of Scotland, and clearing up considerably in France; but dull, wet, and unsettled in England and Ireland with smart thunderstorms again over England. Rainfall heaviest in the south-west (0·8 in.) and at Oxford (1·1 in.). *Temperature* higher in several places than on the 3rd, 78° being recorded at Ardrossan during the day, but only 72° in London. *Wind* fallen extremely light and variable in all the southern districts but continuing easterly to north-easterly in Scotland and Ireland. Westerly breezes beginning to show themselves in the south of France, and reaching the channel during the afternoon. *Sea* rough in the north and north-east. *Barometer.* The depression's central area found at 8h. a.m. over the south of England, the Netherlands, and north-east of France. The mercury rising briskly at the French stations but falling in our Islands. Depression beginning to move towards west during the day.
		**Monday, August 5.** *Weather* continuing fine on the eastern shores of the North Sea and improving somewhat on our own north and east coasts, but still dull and showery in Ireland and England, with lightning in some places. *Temperature* rising considerably in the south-east, and reaching a maximum of 80° at Cambridge, 81° in London, and 84° in the south-west of France during the day. *Wind* drawing into south-east at the English and French stations and falling light, but remaining easterly in the west and north, and blowing freshly in some localities. *Sea* still rough in the north and north-east. *Barometer.* The centre of the depression recently noticed in France and the south of England, now found off the south of Ireland and moving westwards. The barometer rising in the south and east falling in the west and north, but readings still highest over Scandinavia.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ➔ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Meteorological Office,
116, Victoria Street, S.W.

(Signed) ROBERT H. SCOTT,
Secretary.

LONDON: Printed by George E. Eyre and William Spottiswoode
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 391.—150.—8/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 27.] WEEK ENDING MONDAY, AUGUST 12, 1878. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	73	43	60	3 above.	7	13	6 more.
	2. ENGLAND, NORTH-EAST	74	49	62	2 above.	6	15	10 more.
	3. ENGLAND, EAST	79	49	65	3 above.	4	8	3 more.
	4. MIDLAND COUNTIES	79	? 45	64	2 above.	5	13	7 more.
	5. ENGLAND, SOUTH	77	51	66	2 above.	4	4	0 (average).
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	77	48	61	3 above.	6	17	?7 more.
	7. ENGLAND, NORTH-WEST	71	49	62	1 above.	5	15	8 more.
	8. ENGLAND, SOUTH-WEST	76	54	64	2 above.	4	12	6 more.
	9. IRELAND, NORTH	76	50	61	5 above.	6	10	0 (average).
	10. IRELAND, SOUTH	73	54	63	7 above.	5	10	2 more.

N.B.—The minimum (45°) for the Midland Counties is somewhat doubtful, 39° being reported at Hereford; but the latter reading seems to be erroneous.

General Remarks.

Weather during the week has been mild and changeable. Temperature rather above the average for the time of year in all localities, but as much as 5° to 6° in excess over Ireland. The maximum values in no case reached 80° and in "England, N.W." the highest recorded is 71°. The minima, on the other hand, are all above 50° in Ireland and the S. of England, but below that value elsewhere, the lowest of all (43°) being in "Scotland, E."

Rainfall above the average almost everywhere, especially over England, where the falls consisted largely of heavy thunder showers. In Ireland the excess was scarcely appreciable.

Wind at first easterly and south-easterly, but gradually shifting to W. and S.W. and blowing freshly at the close of the week.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	72	48	61·0	+3·8	7	1·92	+1·37
	Aberdeen	73	50	60·5	+3·0	6	1·07	+0·47
	Glenalmond	70	43	58·8	+1·1	7	1·53	?
	Leith	72	50	61·4	+3·1	6	0·52	−0·05
2. ENGLAND, N.E.	Shields	71	49	61·0	+2·1	7	1·14	+0·60
	Durham	74	50	62·3	+2·0	4	1·33	+0·78
	Scarborough	71	54	61·7	+1·7	6	1·50	+1·00
	York	74	49	63·6	+3·4	6	2·13	+1·59
	Kelstern (Lincolnshire) ℳ	73	49	62·0	+1·2	7	1·41	+0·89
3. ENGLAND, E.	Yarmouth	75	55	64·6	+2·9	2	1·36	+0·96
	Cambridge	79	53	66·3	+3·8	5	0·39	+0·02
	Audley End (Saffron Walden) ℳ	78	49	65·2	+2·4	4	0·95	?
	Rothamsted	75	53	64·9	+1·7	5	0·47	0·00
4. MIDLAND COUNTIES	Nottingham	79	49	65·1	+3·7	5	2·96	+2·33
	Loughborough	78	50	65·2	+4·7	5	0·71	?
	Leicester	74	51	64·7	+2·7	6	1·27	?
	Shrewsbury ℳ	73	45	62·4	+1·2	6	2·04	?
	Hereford ℳ	73	? 49	60·9	−0·8	? 4	0·89	+0·42
	Cirencester	74	48	63·2	+0·7	4	0·58	−0·06
	Oxford	74	52	65·2	+2·2	4	0·42	−0·04
5. ENGLAND, S.	London	77	54	65·9	+2·4	4	0·69	+0·25
	Marlborough ℳ	74	51	64·8	+1·5	5	0·71	+0·16
	Strathfield Turgiss* ℳ							
	Dover	71	59	65·5	+3·1	2	0·11	−0·37
	Hastings	72	57	64·0	+1·8	5	0·31	−0·13
	Hurst Castle	74	53	65·1	+2·1	4	0·40	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	72	51	61·0	+4·0	6	4·39	?
	Glasgow	72	49	60·7	+2·6	7	0·96	+0·08
	Ardrossan	70	50	61·5	+3·3	7	1·75	+0·86
	Silloth	77	48	63·6	+4·6	7	0·92	+0·23
	Douglas (Isle of Man)	68	48	59·8	+0·3	3	0·56	?
7. ENGLAND, N.W.	Stonyhurst	71	50	60·4	0·0	5	2·05	+1·02
	Manchester	71	49	60·0	−0·6	5	2·05	+1·35
	Liverpool Observatory (Bidston)	71	53	63·1	+2·6	5	1·06	+0·55
	Holyhead	71	56	63·5	+3·4	3	1·01	+0·45
8. ENGLAND, S.W.	Pembroke	71	58	63·0	+2·1	3	1·52	+0·94
	Portishead	76	54	64·8	+2·5	4	0·61	0·00
	Falmouth	72	56	64·2	+2·0	4	1·26	+0·63
	Plymouth	73	57	65·1	+2·9	6	1·39	+0·82
9. IRELAND, N.	Dunfanaghy	69	51	60·9	+2·4	6	1·65	?
	Greencastle	76	50	61·4	+6·7	6	0·78	−0·07
	Armagh	71	52	61·2	+5·7	6	0·67	+0·04
	Donaghadee	68	50	60·3	+4·9	7	0·79	?
10. IRELAND, S.	Kingstown	69	56	62·6	+6·2	2	0·40	−0·14
	Parsonstown	73	54	63·1	+7·3	4	0·52	−0·28
	Roche's Point	73	55	63·7	+6·9	5	1·05	+0·26
	Valencia	69	55	62·1	+5·7	7	1·85	+0·93
SCOTLAND, N.	Sumburgh Head	67	50	57·8	+5·6	5	0·72	+0·20
	Stornoway	67	48	58·3	+5·9	4	0·97	?
	Thurso	71	44	60·4	+7·7	5	0·44	−0·21
	Wick	74	42	59·3	+6·4	5	0·40	−0·22
——	Scilly (St. Mary's)	72	59	63·9	+4·7	5	1·13	+0·63
	Jersey (Noirmont)	73	58	64·9	+4·9	5	0·45	−0·07

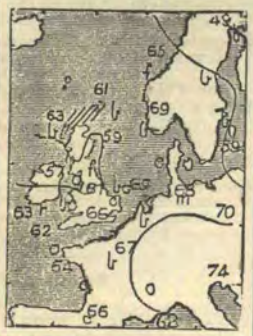
The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.
* The returns from Strathfield Turgiss has again failed.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending August 12, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, August 6.

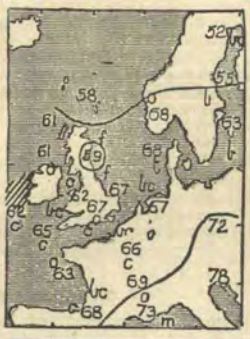
Weather dull and cloudy over the British Isles with rain in most places during the day, and severe thunderstorms in the north and east; nearly 2·5 ins. of rain at Nottingham; fine at most of the Continental stations.

Temperature at 8h. a.m. a little higher in the south than at 8h. a.m. on the 5th, and rising to 79° at Cambridge in the afternoon but the maxima in other places decidedly lower than on the 5th.

Wind still easterly to north-easterly over the major part of the Kingdom, but the south-westerly wind in France gradually spreading over the south of England during the day.

Sea slight.

Barometer falling generally, more in the north than elsewhere, an arm of low pressure lying over our south-west coasts in the morning and moving northwards as the day advanced.



Wednesday, August 7.

Weather cloudy generally except in Sweden; thunder at Fanö in the morning and in North Britain later on; fog off our north-east coasts. More than an inch of rain at Nairn, 0·9 in. at Ardrossan, and 1·8 in at Oxö.

Temperature little changed, and comparatively uniform; but high in the afternoon in the south-west of France.

Wind light to moderate generally, south-easterly in the north, westerly to south-westerly in the south, southerly to south-easterly in Holland and Denmark. The south-westerly wind continuing to spread northwards during the day.

Sea rather rough at Valentia.

Barometer still falling in the north rising elsewhere. The area of lowest pressure now off the west of Scotland, the highest over the Peninsula and south-west of France.

Thursday, August 8.

Weather much finer than of late at all the southern stations, but thunderstorms again experienced in the north, with showers both at the Scotch and Irish stations.

Temperature risen generally, a maximum of 78° being recorded at Cambridge, 77° at Nottingham, and 76° in London.

Wind westerly to south-westerly at all but the extreme northern stations, where it still held from the eastward and northward. Towards night wind backing to the southward in the west.

Sea moderate in the south-west, slight or smooth elsewhere.

Barometer higher than on the 7th. A well marked depression found over the north-west of Scotland at 8h. a.m. and subsequently moving away to the northward.

Friday, August 9.

Weather very fine in the morning at all but the western stations where it had become dull and very wet; the wet weather afterwards spreading to all but the extreme south-eastern and north-eastern stations. From six to eight tenths of an inch of rain measured at Scilly and the two Welsh stations.

Temperature rather lower at 8h. a.m., but higher over England during the day, than it was on the 8th. Maxima 79° at Nottingham, 77° in London and Cambridge, 95° at Biarritz.

Wind south-easterly in France, southerly in Ireland and England, south-westerly in Scotland. The southerly wind freshening in Ireland towards evening.

Barometer uniformly high over Germany, France, and England, but beginning to fall somewhat decidedly in the west of Ireland and over the Bay of Biscay.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, August 10. *Weather* dull, wet, and unsettled all over the British Isles, especially in the east and north-east, but inclined to improve temporarily in the south-west; fine and bright on the eastern shores of the North Sea. Thunderstorms in Belgium and the north-east of France. *Temperature* fallen; the maximum readings exceeding 70° at very few of our stations, and reaching 75° at Portishead only. In the south-west of France, however, they were much higher (82° to 93°). Air very close. *Wind* chiefly southerly and south-easterly, but very variable in the south and west, and finally shifting to the north-westward very generally for a short time. *Sea* moderate to smooth. *Barometer* falling briskly. A primary depression advancing north-eastwards from the Atlantic towards Scotland, and a small secondary one travelling in a similar direction across England, followed by a temporary rise of the glass.
		Sunday, August 11. *Weather* much finer in the morning than on the 10th, but soon breaking up again all over the country. Rainfall heaviest (0·6 in. to 0·8 in.) in the west and south-west. *Temperature* showing no permanent change, though as high as 75° in London, 74° at Cambridge, and 70° at Nottingham for a short time in the afternoon. Much colder in the south-west of France than on the 10th. *Wind* after being westerly or north-westerly, backing quickly to the southward again (the change commencing first in the west), and increasing to a gale in the south-west at evening, and subsequently to a strong breeze over the south of England. *Sea* rough (and afterwards *very* rough) in the south-west and south. *Barometer* falling fast in the west, and the change soon spreading all over the country. Fresh depressions appearing in the west and moving east-north-eastwards.
		Monday, August 12. *Weather* dull, squally, and wet over nearly the whole of Western Europe, but especially so in the south of our Islands and North of France. Severe thunderstorms in the east of England, with 1·2 ins. of rain at Yarmouth. *Temperature* showing no material alteration. *Wind* south-westerly to westerly in the south, southerly in the north, blowing strongly in the Channel and southern districts generally till the evening. *Sea* rough in the Channel and at some of the northern stations. *Barometer* much lower everywhere than on the 11th, but beginning to rise during the day. Depression in the north travelling slowly to the eastward, and slight secondary disturbances passing over England more quickly.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇉ = a heavy gale; ⇒ = a gale; → = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 391.—150.—8/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 28.] WEEK ENDING MONDAY, AUGUST 19, 1878. [*Price 2d.*

[*Annual subscription, post paid*, 12*s.* 6*d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.

2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).

3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.

4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.

5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.

6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).

7. ENGLAND, N.W.—Stonyhurst, Manchester Liverpool Observatory (Bidston), Holyhead.

8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.

9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.

10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	70	43	56	1 below.	5	14	7 more.
	2. ENGLAND, NORTH-EAST	74	48	60	0 (average).	5	10	5 more.
	3. ENGLAND, EAST	76	49	62	1 below.	5	12	8 more.
	4. MIDLAND COUNTIES	77	48	62	0 (average).	4	10	5 more.
	5. ENGLAND, SOUTH	74	51	62	1 below.	4	10	6 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	76	42	59	0 (average).	4	8	2 less.
	7. ENGLAND, NORTH-WEST	71	46	60	0 (average).	5	15	8 more.
	8. ENGLAND, SOUTH-WEST	71	52	62	0 (average).	5	10	4 more.
	9. IRELAND, NORTH	69	46	59	3 above.	6	11	4 more
	10. IRELAND, SOUTH	72	47	61	4 above.	6	20	12 more.

General Remarks.

Weather very wet; thundery and boisterous during the first day or two, afterwards quieter but very dull, with rain at times in the S.W. and N.

Temperature a few degrees above the mean in Ireland, but rather below elsewhere. The highest readings observed exceeded 75° in only three districts, viz., "England, E.", the "Midland Counties," and "Scotland, W."; in Ireland N. the maximum was only 69°.

Rainfall much above the average almost everywhere, but especially in the southern half of Ireland. At Kingstown two very heavy falls were recorded, viz., 1·8 ins. on the 13th and 2·3 ins. on the 15th.

Wind westerly to southerly until Sunday, and blowing a gale in the S. and S.W. on the 13th. On Sunday a light easterly breeze set in at the southern stations and spread quickly all over the country.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	68	46	55·0	−2·2	4	1·76	+1·21
	Aberdeen	67	45	55·8	−1·7	6	1·25	+0·65
	Glenalmond	70	43	56·1	−1·6	4	1·73	?
	Leith	73	45	58·3	0·0	3	0·69	+0·12
2. ENGLAND, N.E.	Shields	70	49	58·5	−0·4	5	0·42	−0·12
	Durham	74	48	60·3	0·0	4	0·86	+0·31
	Scarborough	70	53	60·5	+0·5	4	1·15	+0·65
	York	73	49	60·5	+0·3	5	1·48	+0·94
	Kelstern (Lincolnshire) ℳ	73	49	59·8	−1·0	5	1·27	+0·75
3. ENGLAND, E.	Yarmouth	71	53	61·5	−0·2	4	0·95	+0·55
	Cambridge	76	50	62·6	+1·0	4	1·17	+0·80
	Audley End (Saffron Walden)* ℳ							?
	Rothamsted	73	49	61·3	−1·9	6	1·49	+1·02
4. MIDLAND COUNTIES	Nottingham	74	50	61·7	+0·3	5	1·45	+0·82
	Loughborough	77	50	63·0	+2·5	3	0·66	?
	Leicester	72	50	61·4	−0·6	5	1·15	?
	Shrewsbury ℳ	74	48	61·4	+0·2	4	1·01	?
	Hereford ℳ	73	50	61·6	−0·1	3	0·79	+0·32
	Cirencester	75	48	61·0	−1·5	4	0·97	+0·33
	Oxford	72	50	62·3	−0·5	4	0·90	+0·44
5. ENGLAND, S.	London	74	51	63·1	−0·4	5	0·96	+0·52
	Marlborough ℳ	73	52	62·2	−1·1	4	1·48	+0·93
	Strathfield Turgiss* ℳ							
	Dover	70	53	62·5	+0·1	3	0·82	+0·34
	Hastings	68	51	60·7	−1·5	6	1·17	+0·73
	Hurst Castle	70	54	63·6	+0·6	4	0·75	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	67	42	56·6	−0·4	3	0·43	?
	Glasgow	69	48	58·4	+0·3	3	0·89	−0·01
	Ardrossan	70	48	59·0	+0·8	3	0·37	−0·52
	Silloth	76	47	61·2	+2·2	6	0·72	+0·03
	Douglas (Isle of Man)	68	50	58·3	−1·2	3	1·68	?
7. ENGLAND, N.W.	Stonyhurst	71	46	59·1	−1·3	6	2·06	+1·06
	Manchester	70	49	59·9	−0·7	5	1·41	+0·71
	Liverpool Observatory (Bidston)	68	54	60·6	+0·1	4	1·09	+0·58
	Holyhead	68	53	60·9	+0·8	5	1·25	+0·69
8. ENGLAND, S.W.	Pembroke	71	55	61·2	+0·3	5	0·91	+0·33
	Portishead*							?
	Falmouth	69	54	61·7	−0·5	6	0·85	+0·22
	Plymouth	71	52	62·1	−0·1	4	1·34	+0·77
9. IRELAND, N.	Dunfanaghy	67	52	59·1	+0·6	5	2·17	?
	Greencastle	69	46	58·0	+3·3	5	1·48	+0·63
	Armagh	67	48	59·4	+3·9	5	0·82	+0·19
	Donaghadee	67	48	59·0	+3·6	7	0·83	?
10. IRELAND, S.	Kingstown	67	51	60·1	+3·7	6	4·30	+3·76
	Parsonstown	70	47	60·9	+5·1	6	1·50	+0·70
	Roche's Point	72	53	62·2	+5·4	4	0·96	+0·17
	Valencia	67	53	60·3	+3·9	6	1·02	+0·10
SCOTLAND, N.	Sumburgh Head	65	41	52·8	+0·5	2	0·06	−0·46
	Stornoway	63	40	54·2	+1·8	5	0·37	?
	Thurso	68	43	56·5	+3·8	5	0·16	−0·49
	Wick	66	43	55·0	+2·1	4	0·56	−0·06
——	Scilly (St. Mary's)	67	57	62·1	+3·1	5	0·90	+0·40
	Jersey (Noirmont)	70	56	62·8	+2·8	4	0·63	+0·11

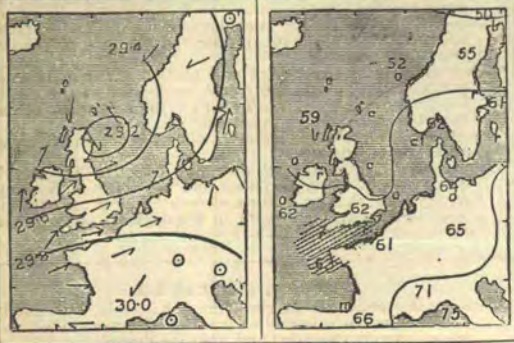
The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.
* The returns from Audley End, Strathfield Turgiss, and Portishead have failed this week.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending August 19, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, August 13.

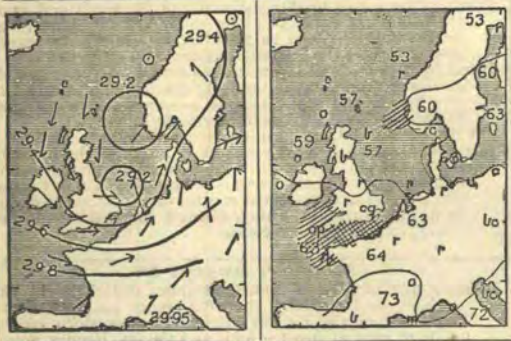
Weather changeable, unsettled, and threatening. Sky overcast, with rain generally, and in several places the falls very heavy. Thunder at Nairn.

Temperature very little changed at 8h. a.m. readings then varying from 58° in the extreme north of our islands to 62° in the south; but the maximum did not reach 70° at any station, except Nottingham.

Wind moderate to fresh. from west-south-west in the morning, but subsequently varying a great deal from south to west, and blowing strongly from the latter quarter. A moderate to fresh gale from west-south-west felt over all the southern districts towards night.

Sea running high in the Channel, and rough off the south-west of Norway.

Barometer highest (about 30 ins.) in the south of France. A depression with readings about 29·1 ins. in its centre lying off Aberdeen, and another one advancing eastwards across England later in the day.



Wednesday, August 14.

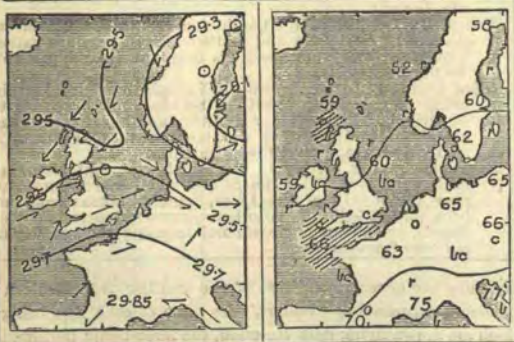
Weather still dull, squally, wet, and unsettled, except in the west, where an improvement set in early and subsequently extended to the other parts of the kingdom. Large falls of rain at the Danish stations.

Temperature a little higher during the day than on the 13th, the maximum readings exceeding 70° at all our south-eastern stations.

Wind still strong from the westward in England, but lulling and veering north-westwards later in the day. North-easterly breezes appearing in the north towards evening.

Sea rough, both in the Channel and at Stornoway.

Barometer rising generally as the day advanced. Depressions in the north and east continuing to move eastwards.



Thursday, August 15.

Weather fair in the morning over the greater part of Ireland and England, but rainy in Scotland and on our extreme western coasts. Rain (with thunderstorms) subsequently becoming very heavy, especially in Ireland and Scotland. 2·3 ins. measured at Kingstown, 1·1 ins. at Aberdeen, and 1 in. at Nairn.

Temperature little changed on the whole; but maxima of 74° recorded at London and Cambridge, and 73° at Nottingham.

Wind variable; chiefly west-south-westerly at the southern stations, easterly to north-easterly in the north, and north-westerly on the eastern shores of the North Sea. Southerly breezes appearing in Ireland at night.

Sea still rough both in the south and extreme north.

Barometer high both at the southern and northern stations, low in the west and falling all day. New depression advancing towards Ireland at night; old ones disappearing over the Baltic and Russia.

Friday, August 16.

Weather still very wet, thundery, and unsettled over England and the North Sea, but improving in the west; 1·1 ins. of rain at Oxō and the Helder, 0·6 in. at Nairn and Leith, 0·3 in. in the south-east of England.

Temperature fallen a little, but not much, except during the rain.

Wind very variable; southerly at all the eastern stations in morning and northerly in the west, the latter being the stronger of the two air currents. Wind afterwards becoming northerly and north-westerly very generally, but soon "backing" again in the west.

Sea still rough in the north and in the Channel.

Barometer. A well defined pear-shaped depression crossing over England in an east-north-easterly direction during the day, barometer rising generally in its rear. Gradients never very steep.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, August 17.

Weather continuing unsettled; much finer over Great Britain than on the 16th, but beginning to look bad again in Ireland. Slight rain in the west and north, dry in the south and east.

Temperature several degrees colder in the north and east, the maxima being below 70° all over the kingdom, and as low as 58° at Stornoway.

Wind light from north-west and north on our north-east coasts, moderate from west and north-west in the south, but back to the southward again in the north-west of our Islands, and to south-west at Valentia.

Sea still rough in the north and in the Channel, and rising at Valentia and Biarritz.

Barometer rising almost all over our Islands. Yesterday's depression now over Denmark and the south of Norway. A very small shallow disturbance passing near our extreme west and north-west coasts in the daytime, but soon dispersing or else travelling away northwards.

Sunday, August 18.

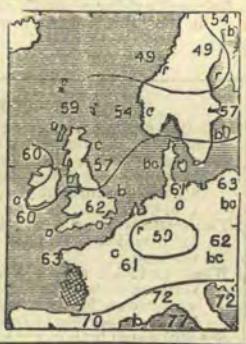
Weather fine generally in the United Kingdom, but cloudy and looking threatening over our southern counties, and becoming very unsettled and wet over France.

Temperature rising briskly, especially in the north and east; the maximum readings rising to 76° at Cambridge, 73° at York and Leith, and to 70° even at Oxō. In the south-west of France the highest readings were 86° to 90°.

Wind light to moderate from the westward over our Islands in the morning, but an easterly breeze had already set in over France and soon extended to our southern counties. Strong north-west winds in Scandinavia.

Sea little disturbed, except in the Skager Rack.

Barometer higher in most places than on the 17th; and still rising in the north and east. An area of high pressure lying over Germany and the north of France, but a new depression advancing towards the south-west of France from the Peninsula during the day, causing the mercury to fall briskly on our southern coasts.



Monday, August 19.

Weather fine at all the central stations, dull both in our northern and southern districts, rainy in France and Belgium, and also on our extreme south-western coasts, 0·6 in. of rain at Brest, 0·3 in. at Valentia, Roches Point, and Lorient.

Temperature fallen in the north and east, and risen several degrees in the south and south-west, but readings rather irregular. Maximum readings over the inland parts of England 70° to 74°.

Wind northerly to north-westerly in Scandinavia, and freshening to gale in the south of Sweden; north-easterly to easterly, but light, in our Islands; and blowing a strong gale from south-west in the south-west of France. A southerly breeze prevailing at Valentia.

Barometer falling briskly in the south-west, but changing little elsewhere. The centre of a small depression found near the mouth of the Loire, moving northwards but becoming filled up. Another (larger) depression over Russia, and advancing *westwards*, causing the mercury to fall over Scandinavia.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ⇒ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode
Printers to the Queen's most Excellent Majesty,
For Her Majesty's Stationery Office.
[B 391.—150.—8/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 29.] WEEK ENDING MONDAY, AUGUST 26, 1878. [*Price 2d.*

[*Annual subscription, post paid*, 12*s.* 6*d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	71	44	58	2 above.	3	3	4 less.
	2. ENGLAND, NORTH-EAST	74	44	59	0 (average).	3	6	0 (average).
	3. ENGLAND, EAST	74	43	61	0 (average).	4	7	2 more.
	4. MIDLAND COUNTIES	79	46	60	0 (average).	3	15	10 more.
	5. ENGLAND, SOUTH	73	50	62	1 above.	5	17	12 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	74	45	60	3 above.	2	1	8 less.
	7. ENGLAND, NORTH-WEST	70	45	60	1 above.	3	6	3 more.
	8. ENGLAND, SOUTH-WEST	70	55	62	2 above.	4	11	4 more.
	9. IRELAND, NORTH	73	50	60	3 above.	3	1	7 less.
	10. IRELAND, SOUTH	72	51	61	2 above.	6	13	4 more.

General Remarks.

Weather very changeable and unsettled.

Temperature about the mean in the midland and eastern parts of England, but a little above it in all other districts. The highest readings recorded varying from 70° to 75° except at Nottingham, where 79° was registered on the 26th. The nights have been generally warm and no frosts are reported.

Rainfall has varied much in different localities. In the northern districts it has been generally slight, but in the southern and midland counties it has greatly exceeded the mean. In central England very heavy falls occurred on Thursday and Friday last, while a severe thunderstorm on Saturday brought torrents of rain to our southern counties.

Wind has been very variable. It has been generally light in force in the north, but strong S.E. winds and gales blew on our south-west coasts about the 21st and 22nd.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	71	44	57·5	+2·1	2	0·11	−0·59
	Aberdeen	65	44	57·2	+1·2	3	0·34	−0·45
	Glenalmond	67	47	56·3	+0·2	3	0·22	?
	Leith	71	45	59·0	+2·5	3	0·46	−0·14
2. ENGLAND, N.E.	Shields	68	50	58·9	+1·5	3	0·60	0·00
	Durham	72	46	59·7	+1·5	2	0·64	+0·06
	Scarborough	64	52	58·3	−0·1	3	0·50	−0·12
	York	74	46	58·4	0·0	3	0·44	−0·20
	Kelstern (Lincolnshire) ℔	72	44	58·0	−1·1	4	1·03	+0·47
3. ENGLAND, E.	Yarmouth	67	50	60·5	+0·3	4	0·88	+0·32
	Cambridge	74	44	60·7	+0·1	2	0·51	+0·05
	Audley End (Saffron Walden) ℔	73	43	60·8	0·0	3	0·74	?
	Rothamsted	70	47	60·0	−1·0	5	0·71	+0·14
4. MIDLAND COUNTIES	Nottingham	79	49	61·6	+2·1	4	1·81	+1·14
	Loughborough	74	49	61·2	+1·3	3	1·24	?
	Leicester	72	50	60·2	+0·1	3	1·34	?
	Shrewsbury ℔	74	46	59·1	−0·3	2	0·99	?
	Hereford ℔	70	49	59·3	−0·7	5	2·52	+1·89
	Cirencester	73	49	60·8	+0·3	3	1·41	+0·65
	Oxford	70	52	60·5	−0·3	3	1·04	+0·46
5. ENGLAND, S.	London	72	52	62·1	+0·7	5	1·72	+1·18
	Marlborough ℔	73	50	61·8	+0·8	3	1·56	+0·83
	Strathfield Turgiss ℔	71	51	61·9	+0·7	4	1·28	+0·74
	Dover	68	57	63·0	+2·0	5	0·47	−0·12
	Hastings	69	52	61·3	+0·4	5	3·77	+3·21
	Hurst Castle	69	55	62·8	+1·6	5	1·15	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	71	45	59·3	+3·9	0	—	?
	Glasgow*							
	Ardrossan	69	49	60·0	+3·6	2	0·08	−0·87
	Silloth	74	46	60·0	+2·6	2	0·16	−0·64
	Douglas (Isle of Man)	67	49	58·5	+0·7	2	0·32	?
7. ENGLAND, N.W.	Stonyhurst	70	45	58·1	−0·5	5	0·83	−0·36
	Manchester	70	48	59·1	+0·3	2	0·21	−0·64
	Liverpool Observatory (Bidston)	70	53	60·5	+1·6	2	0·51	−0·26
	Holyhead	70	53	61·0	+2·4	3	0·81	+0·11
8. ENGLAND, S.W.	Pembroke	68	56	61·5	+2·0	3	0·86	+0·08
	Portishead*							?
	Falmouth	70	57	62·2	+1·4	5	1·06	+0·37
	Plymouth	68	55	61·8	+1·1	4	1·45	+0·62
9. IRELAND, N.	Dunfanaghy	69	56	61·8	+5·3	4	0·10	?
	Greencastle	73	50	60·2	+3·7	2	0·13	−0·79
	Armagh	67	52	59·1	+1·7	4	0·14	−0·54
	Donaghadee	64	53	58·1	+0·8	3	0·03	?
10. IRELAND, S.	Kingstown	66	55	60·1	+2·0	6	0·55	−0·03
	Parsonstown	72	54	61·4	+3·7	6	0·61	−0·22
	Roche's Point	70	52	60·6	+1·9	6	2·42	+1·43
	Valencia	67	51	59·8	+1·4	7	1·44	+0·37
SCOTLAND, N.	Sumburgh Head	62	44	53·1	−0·3	2	0·13	−0·38
	Stornoway	64	49	56·8	+3·1	2	0·09	?
	Thurso	64	37	54·5	+0·3	3	0·36	−0·36
	Wick	65	40	56·5	+2·0	3	0·21	−0·44
——	Scilly (St. Mary's)	70	58	62·7	+2·1	6	0·87	+0·08
	Jersey (Noirmont)	67	57	62·3	+0·9	5	1·56	+0·95

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "℔" are in connection with the Meteorological Society.

* The return from Glasgow has not come to hand, and the values for Portishead are incomplete.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending August 26, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, August 20.

Weather fine in the north and east of Scotland, and over the greater part of the North Sea; overcast elsewhere, with rain continuing in Sweden and setting in on our south and south-west coasts.

Temperature lower than on the 19th, the maximum readings at our own stations being all below 70°, except at Nottingham and Scilly.

Wind northerly on the eastern shores of the North Sea, light north-easterly to easterly over the greater part of our islands, but fresh from south at Scilly, and blowing a gale from west at the mouth of the Loire. A northerly gale experienced in the Gulf of Bothnia, and a south-westerly gale at Wisby (Baltic).

Sea rough off our south-western coasts and in the Skager Rack.

Barometer highest (exceeding 30 ins.) over the north-east of Scotland and the south-west of France; a band of rather high readings uniting these localities and dividing the low pressures of the Baltic from those of the Atlantic. The depression noticed in the north-west of France yesterday, now near Jersey, and becoming filled up.

Wednesday, August 21.

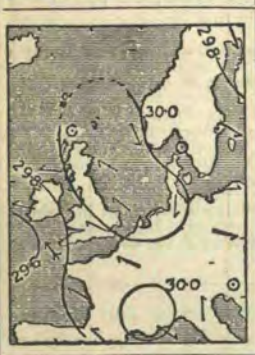
Weather varying greatly in different parts of the country, but much finer on the whole than on the 20th, especially at our eastern stations. Some showers in the west during day, and 0·4 in. of rain in the south of Ireland.

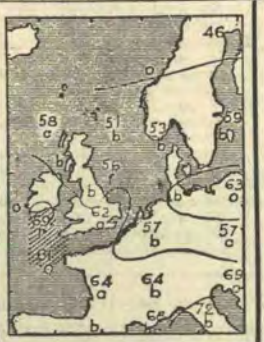
Temperature not changing much; the 8 a.m. readings still below 60° at all our more westerly stations, but the maximum readings reaching 70° to 73° over the inland parts of England.

Wind south-easterly to southerly in the west and south, but still easterly in the north, light in the east and north, but freshening somewhat in the south-west towards evening. North-westerly breezes prevailing in Sweden, and blowing a gale at Wisby.

Sea rather rough in the Channel.

Barometer rising slowly in the east and north, but falling steadily on our south-west coasts, and depression apparently approaching that region. Band of relatively high pressure lying over the Bay of Biscay, France, and our eastern and north-eastern stations.





Thursday, August 22.

Weather still fair at our north and north-east stations, but very cloudy and threatening in the south-west, with heavy rain in France and the south of Ireland. Rain subsequently extending to all southern stations. Largest amounts reported 1·1 in. at Brest, 1·0 in. at Hurst Castle, 0·9 in. at Rochès Point, 0·7 in. at Oxford, 0·6 in. at Nottingham and Plymouth, and 0·5 in. in London.

Temperature changing very slightly. Maximum readings over central and southern England, 70° to 72°.

Wind blowing a gale from south-east in south-west, but moderate from east in west. Fresh easterly to south-easterly wind felt in the Channel, and an easterly gale at Yarmouth later in the day.

Sea rough off south-west coasts and at Yarmouth, slight in north.

Barometer falling generally. Large depression off our south-west coasts all day, and small secondary disturbance advancing from the southward to our south coasts at night.

Friday, August 23.

Weather fair in Scotland and to the eastward of the North Sea, very much disturbed and rainy elsewhere, with severe thunderstorms over England, and at some of the Continental stations. More than an inch of rain at Brussels, 0·7 in. at Brest, 0·6 in. at Nottingham, and 0·5 in. in London.

Temperature inclined to rise in France, but falling in our Islands.

Wind easterly, strong to a gale, over nearly the whole of England and Ireland, and light easterly in Scotland, but light from south-west in France, and variable in the Channel. In Scandinavia wind chiefly north-westerly, blowing strongly at Wisby and Hernösand.

Sea rough in the east, west, and south-west.

Barometer falling generally all the morning. A depression lying off the mouth of the Channel, and a secondary one near Bournemouth. In the course of the day the former disturbance was dissipated, and that near Bournemouth removed a little to the north-eastward.

(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, August 24.

Weather still fine in Scotland, very unsettled and dull in other parts of the Kingdom, with rain in many places, followed by thunderstorms of great severity over England. Rainfall amounting to 0·7 in. occurred in London during a severe thunderstorm in the morning, and 4·6 ins. of rain in 12½ hours near Hastings.

Temperature very unsteady; the 8h. a.m. readings below 60° at all but our most southern stations, but the maximum exceeding 70° at York, Nottingham, and Cambridge.

Wind more moderate, and drawing into north-east in the north of England, to north in Ireland and north-west at the south-western stations.

Sea still rough in the north-east and north-west.

Barometer falling a little everywhere, most in the north. Depression lying over our south-eastern counties and moving very irregularly. Another larger disturbance apparently approaching our north-west coasts.

Sunday, August 25.

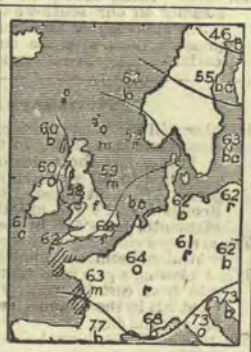
Weather dull, unsettled, and more or less rainy, except at our north-western stations and over Sweden.

Temperature changing a good deal in different localities, but no general alteration recorded. The maximum values again above 70° at Nottingham and Cambridge, and also at Nairn and Portishead, but not above 64° in London and 62° at Scarborough.

Wind south-easterly and southerly in the west and north-west and easterly in the north, but westerly to south-westerly over France, and very variable elsewhere. A strong north-westerly gale reported at Corunna, and a strong westerly wind at Toulon.

Sea rough in the far north as well as at Corunna and Toulon, slight or smooth elsewhere.

Barometer rising at all the southern stations, falling in the west and north. Pressure lower to the westward of than over our Islands, but the small depression noticed yesterday now found off our east coast.



Monday, August 26.

Weather in the morning dull, foggy, and rainy all over the United Kingdom and North Sea, but clear in Sweden and the north of Norway. Sky clearing somewhat in the north and east later on.

Temperature rising in France, and subsequently rising a little in our Islands also, the various maxima exceeding 70° in many parts of England and Scotland, and reaching (it is said) 79° at Nottingham.

Wind westerly to south-westerly in France, very variable indeed over Great Britain, and southerly in Ireland. Calms reported in Scotland. The westerly wind subsequently extending across the Channel to the south of England, and blowing strongly at exposed stations.

Sea rough in the south and extreme west.

Barometer very unsteady in our Islands but rising in France. The whole area of irregular pressures beginning to move northwards slowly, and the weather in the south improving a little; air getting less close.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Meteorological Office,
116, Victoria Street, S.W.

(Signed) ROBERT H. SCOTT,
Secretary.

LONDON: Printed by George E. Eyre and William Spottiswoode
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 391.—150.—9/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 30.] WEEK ENDING MONDAY, SEPTEMBER 2, 1878. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857–69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866–75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	72	50	59	3 above.	6	12	5 more.
	2. ENGLAND, NORTH-EAST	73	49	60	2 above.	5	12	6 more.
	3. ENGLAND, EAST	75	49	61	1 above.	5	11	8 more.
	4. MIDLAND COUNTIES	76	48	60	0 (average).	5	8	2 more.
	5. ENGLAND, SOUTH	72	48	62	1 above.	5	11	7 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	77	49	60	3 above.	5	12	5 more.
	7. ENGLAND, NORTH-WEST	69	49	60	1 above.	5	9	0 (average).
	8. ENGLAND, SOUTH-WEST	70	51	62	1 above.	5	10	2 more.
	9. IRELAND, NORTH	71	50	59	2 above.	5	10	4 more.
	10. IRELAND, SOUTH	70	47	60	1 above.	5	11	2 more.

General Remarks.

Weather, until quite the close of the week, very dull and wet. Temperature slightly above the mean in most districts, but the maxima not high. The thermometer rose to 76° at Nottingham on August the 27th, and to 77° at Silloth, in Cumberland, on the 29th; but with these exceptions it seldom reached 75°, and on many days was not above 70°. The nights, however, were warm.

Rainfall above the mean in all districts excepting "England, North-west." Thunderstorms very general in the early part of the week, and showers extremely heavy in some parts of England.

Wind has varied much. At the commencement of the week it was generally south-westerly, but on the 29th and 30th August a series of depressions crossed England and caused easterly winds in the north; as the disturbances passed away eastward the wind veered to N.W. very generally. A strong S.W. gale blew in the Channel on the 30th.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	67	50	58·4	+3·0	7	0·89	+0·19
	Aberdeen	65	52	58·8	+2·8	7	1·32	+0·53
	Glenalmond	68	50	59·1	+3·0	5	1·33	?
	Leith	72	50	59·4	+2·9	5	1·29	+0·69
2. ENGLAND, N.E.	Shields	70	52	59·6	+2·2	5	1·08	+0·48
	Durham	73	49	60·3	+2·1	5	2·04	+1·46
	Scarborough	70	55	60·3	+1·9	5	1·42	+0·80
	York	73	51	61·0	+2·6	5	0·56	−0·08
	Kelstern (Lincolnshire) ℳ	71	50	59·7	+0·6	5	1·05	+0·49
3. ENGLAND, E.	Yarmouth	70	53	60·9	+0·7	6	0·58	+0·02
	Cambridge	73	49	61·1	+0·5	4	?1·71	+1·25
	Audley End (Saffron Walden) ℳ	70	49	60·7	−0·1	5	0·67	?
	Rothamsted	75	50	61·8	+0·8	5	1·59	+1·02
4. MIDLAND COUNTIES	Nottingham	76	48	61·5	+2·0	5	0·94	+0·27
	Loughborough	71	51	60·6	+0·7	4	0·67	?
	Leicester	72	50	59·8	−0·3	4	0·38	?
	Shrewsbury ℳ	69	50	60·0	+0·6	5	0·90	?
	Hereford ℳ	69	51	59·7	−0·3	4	0·84	+0·21
	Cirencester	70	50	60·3	−0·2	5	0·66	−0·10
	Oxford	71	54	61·1	+0·3	5	1·13	+0·55
5. ENGLAND, S.	London	72	52	62·6	+1·2	5	1·16	+0·62
	Marlborough ℳ	72	50	61·1	+0·1	4	1·13	+0·60
	Strathfield Turgiss ℳ	71	51	61·6	+0·4	5	1·00	+0·46
	Dover	69	55	63·1	+2·1	5	0·79	+0·20
	Hastings	70	53	61·6	+0·7	5	2·27	+1·71
	Hurst Castle	68	48	62·7	+1·5	5	0·49	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	68	49	58·8	+3·4	5	1·03	?
	Glasgow	69	51	59·4	+3·0	5	0·65	−0·36
	Ardrossan	68	52	60·1	+3·7	4	1·17	+0·22
	Silloth	77	51	62·7	+5·3	6	2·48	+1·68
	Douglas (Isle of Man)	66	52	58·7	+0·9	3	0·62	?
7. ENGLAND, N.W.	Stonyhurst	68	49	58·6	0·0	4	1·34	+0·15
	Manchester	68	52	59·6	+0·8	5	0·86	+0·01
	Liverpool Observatory (Bidston)	69	54	60·3	+1·4	5	0·84	+0·07
	Holyhead	69	56	60·5	+1·9	4	0·63	−0·07
8. ENGLAND, S.W.	Pembroke	66	56	60·7	+1·2	5	1·25	+0·47
	Portishead	70	55	62·0	+1·5	5	0·51	−0·19
	Falmouth	70	54	61·5	+0·7	4	1·22	+0·53
	Plymouth	69	51	62·7	+2·0	4	0·83	0·00
9. IRELAND, N.	Dunfanaghy	67	50	59·4	+2·9	5	0·55	?
	Greencastle	71	50	58·9	+2·4	4	1·31	+0·39
	Armagh	68	51	58·5	+1·1	5	1·04	+0·36
	Donaghadee	65	51	58·4	+1·1	4	0·93	?
10. IRELAND, S.	Kingstown	67	54	59·6	+1·5	4	0·60	+0·02
	Parsonstown	70	47	59·1	+1·4	3	1·09	+0·26
	Roche's Point	69	53	60·7	+2·0	4	1·37	+0·38
	Valencia	68	49	59·2	+0·8	7	1·31	+0·24
SCOTLAND, N.	Sumburgh Head	63	46	55·1	+1·7	4	0·14	−0·37
	Stornoway	67	50	56·5	+2·8	2	0·23	?
	Thurso	68	46	56·6	+2·4	6	0·82	+0·10
	Wick	69	43	56·6	+2·1	5	0·55	−0·10
——	Scilly (St. Mary's)	69	57	62·4	+1·8	5	2·03	+1·24
	Jersey (Noirmont)	71	56	63·0	+1·6	4	0·15	−0·46

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending September 2, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, August 27.

Weather dull, showery, and unsettled but improving somewhat in the south. Rainfall varying from 0·3 in. to 0·5 in. at many of the western ports, but much slighter elsewhere.

Temperature showing no important change, the 8 a.m. readings differing very little from those of the 26th, though the maximum values showed a slight decrease.

Wind now westerly to southerly at all but the northern stations, where easterly and south-easterly winds were very much mingled with those from N.E. and N. Towards evening the S.W. wind blew very strongly at the mouth of the Channel.

Sea rough in the Channel and off the W. of Ireland.

Barometer still rising in the S., falling in the Shetlands and Scandinavia. Pressure still very irregularly distributed in the north, but moderate and regular gradients for south-westerly winds found in the south. During the day a depression passed over Ireland in a north-easterly direction, but soon dispersed when it reached Great Britain.

Wednesday, August 28.

Weather finer generally than of late, but rain still falling in the E. and N. of Scotland, showers at Scilly, and the sky still overcast in many places.

Temperature showing very little change, but inclined to rise in the S. and E.

Wind light from N. in Scotland, moderate from N.W. in Ireland, strong from W. and S.W. in the Channel and S. of England, and moderate from S.W. and S. in Holland and Denmark. Towards night the wind lulled to almost a calm in the S.W. and backed to the south-eastward.

Sea rough in the S.W. and S., slight or smooth elsewhere.

Barometer rising generally, but readings in the north still irregular. Late in the afternoon the rise ceased and a fall set in which became brisk during the night, being the first effect of a fresh series of disturbances advancing from the Atlantic.

Thursday, August 29.

Weather very unsettled again. Sky overcast except in the far N., much rain in the W., and fog in the E. and N.E. Heavy rains subsequently extending all over the kingdom.

Temperature still showing very little change in our Islands, but rising in France. A maximum of 77° reached at Cape Grés Nez during the day, 72° in London, and 71° at Nottingham.

Wind back to E. and N.E. again in Ireland and Scotland, south-easterly in England, southerly at the mouth of the Channel, and south-westerly to westerly over the Bay of Biscay. The southerly winds in the south subsequently veering to S.W. and blowing a strong gale in squalls over the Channel and southern counties of England.

Sea running high in the S. as the wind rose.

Barometer at first rising in the N., falling in the S. and S.W. A depression appearing in the south-western districts subsequently growing deeper, and, supplemented by a second depression from the Atlantic, moving east-north-easterwards over England during the night.

Friday, August 30.

Weather very dull, wet, and squally all over the British Islands, France, and the North Sea; the sky overcast, with rain at times during the day. Rainfall varying from 0·5 in. to 0·9 in. at our northern and eastern stations. Still fair (but dull) over Scandinavia.

Temperature very little changed at 8 a.m., but lower generally during the day than on the 29th.

Wind moderate from N. in Ireland, strong to a gale from W. and S.W. in the Channel, light to moderate from S. in Holland, south-easterly in Denmark, and easterly to north-easterly in the north. A moderate easterly gale felt in the N. of Scotland early in the morning. Later in the day the wind drawing into N. at all but our south-eastern stations.

Sea high in the S. and also at Stornoway.

Barometer beginning to rise in the W. and S. as the complicated depression (which lay over England and the North Sea at 8 a.m.) moved eastwards.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, August 31. *Weather* improved, but still very dull and showery generally, the rain being heaviest at some of our south-eastern and eastern stations and in Holland. *Temperature* not much changed at 8 a.m., but rather lower in the afternoon than on the 30th. The maximum reading for London only 66°, Oxford 64°, and Thurso 57°. *Wind* fresh from N.E. in the N., from N. and N.W. on our western coasts, and from W. in the south; light from N. at our eastern stations in the morning, but blowing a fresh gale at the mouth of the Tyne occasionally during the day. *Sea* rough in the W. and S. and afterwards in the N.E. *Barometer* rising everywhere in our Islands. The depressions of yesterday (apparently somewhat modified) now found over the North Sea, and moderate gradients for northerly winds spreading over the United Kingdom.
		Sunday, September 1. *Weather* much improved, but some rain again registered at several of our north-eastern and eastern stations. *Temperature* fallen generally, the maximum for London being only 62° and Oxford 61°. *Wind* moderate generally over the United Kingdom and France; northerly in Scotland, north-westerly in Ireland, England, and the Bay of Biscay, but south-westerly in the Netherlands, and variable in Denmark and Scandinavia. *Sea* going down, but still rough in the N.E. *Barometer* still rising. The disturbances of the past day or two still moving slowly towards the Baltic, altering in form and decreasing in intensity.
		Monday, September 2. *Weather* fine (but cloudy and foggy in several places) over Great Britain; inclined to break up again in the west. Sky densely overcast and rainy at Valentia, with a very threatening appearance, the rain subsequently extending in small quantity to most of our north-western stations. *Temperature* risen generally, but only to a small extent. *Wind* back to S. again in the W. and N.W., and increasing to a slight gale at Valentia and a fresh gale at Stornoway later in the day. Easterly breezes felt over the Bay of Biscay, but moderate north-westerly winds on the eastern shores of the North Sea and very light ones in the S.E. of England. *Sea* rough and rising at Valentia and Stornoway, but slight on our other coasts. *Barometer* still rising in the E. and S.E. Depressions over the Atlantic beginning to move in a north-easterly direction outside our W. and N.W. coasts, but only affecting the wind appreciably at the most advanced and exposed of our western stations.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Meteorological Office,
116, Victoria Street, S.W.

(Signed) ROBERT H. SCOTT,
Secretary.

LONDON: Printed by George E. Eyre and William Spottiswoode
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 391.—150.—9/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 31.] WEEK ENDING MONDAY, SEPTEMBER 9, 1878. [*Price 2d.*

[*Annual subscription, post paid,* 12*s.* 6*d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-Producing Districts.	1. SCOTLAND, EAST	72	48	60	6 above.	3	3	8 less.
	2. ENGLAND, NORTH-EAST	74	49	62	5 above.	1	less than ½	7 less.
	3. ENGLAND, EAST	78	46	62	4 above.	3	less than ½	6 less.
	4. MIDLAND COUNTIES	78	48	62	4 above.	2	3	6 less.
	5. ENGLAND, SOUTH	75	47	63	4 above.	2	1	6 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	76	47	60	6 above.	4	4	9 less.
	7. ENGLAND, NORTH-WEST	70	50	61	4 above.	2	3	8 less.
	8. ENGLAND, SOUTH-WEST	73	52	62	3 above.	2	2	7 less.
	9. IRELAND, NORTH	72	48	61	5 above.	4	3	6 less.
	10. IRELAND, SOUTH	71	51	63	6 above.	3	1	8 less.

General Remarks.

Weather generally fair, especially towards the close of the week; a good deal of fog reported on the mornings of the 5th and 6th. Temperature several degrees above the mean. The maxima exceeding 75° on many occasions at the English and Scotch stations, but scarcely reaching that value in Ireland. The nights generally warm.

Rainfall very much below the mean in all districts, the deficit ranging from six to nine tenths of an inch. Slight thunderstorms felt in many parts of England on the 7th and 8th.

Wind south-westerly and generally light in force, but freshening to a strong breeze at many of the western and northern stations on the 3rd.

The data from which the summary on the preceding page has been calculated are as follow:—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	72	48	60·6	+7·1	3	0·36	−1·38
	Aberdeen	72	49	59·5	+5·0	2	0·54	−0·30
	Glenalmond	69	48	58·9	+4·4	3	0·12	?
	Leith	72	51	61·5	+6·8	3	0·04	−0·59
2. ENGLAND, N.E.	Shields	72	54	61·4	+5·6	1	0·02	−0·62
	Durham	74	49	62·2	+6·2	0	—	−0·61
	Scarborough	71	56	61·6	+4·9	0	—	−0·73
	York	72	54	62·5	+5·9	0	—	−0·73
	Kelstern (Lincolnshire) ℳ	73	50	61·2	+3·9	1	0·01	−0·59
3. ENGLAND, E.	Yarmouth	74	51	62·2	+3·5	4	0·05	−0·67
	Cambridge	78	49	63·4	+4·8	1	0·04	−0·51
	Audley End (Saffron Walden) ℳ	76	46	62·4	+3·6	2	0·03	?
	Rothamsted	73	48	61·7	+3·0	3	0·04	−0·62
4. MIDLAND COUNTIES	Nottingham	78	52	64·2	+6·6	1	0·11	−0·60
	Loughborough	74	52	62·0	+4·1	2	0·45	?
	Leicester	70	52	61·1	+2·9	2	0·55	?
	Shrewsbury ℳ							
	Hereford ℳ	73	50	60·9	+2·7	3	0·28	−0·51
	Cirencester	76	48	61·7	+3·2	3	0·21	−0·67
	Oxford	72	52	62·4	+3·8	3	0·26	−0·44
5. ENGLAND, S.	London	75	50	62·4	+3·2	2	0·06	−0·57
	Marlborough ℳ	73	50	62·8	+4·1	3	0·23	−0·68
	Strathfield Turgiss ℳ	75	47	62·1	+3·0	0	—	−0·70
	Dover	70	55	63·5	+4·0	3	0·06	−0·64
	Hastings	70	53	62·3	+2·8	3	0·19	−0·48
	Hurst Castle	72	53	63·4	+4·1	3	0·22	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	69	49	59·0	+5·3	5	1·30	?
	Glasgow	68	52	60·4	+5·8	4	0·09	−1·05
	Ardrossan	70	52	60·6	+6·0	5	0·27	−0·76
	Silloth	76	52	63·4	+7·7	3	0·13	−0·78
	Douglas (Isle of Man)	68	47	58·6	+2·5	1	0·05	?
7. ENGLAND, N.W.	Stonyhurst	70	50	60·5	+3·8	1	0·17	−1·17
	Manchester	70	50	61·0	+4·0	1	0·03	−0·97
	Liverpool Observatory (Bidston)	70	55	61·9	+4·7	2	0·06	−0·96
	Holyhead	67	56	61·7	+4·7	3	0·86	+0·03
8. ENGLAND, S.W.	Pembroke	70	55	62·4	+4·4	1	0·17	−0·80
	Portishead	73	52	62·1	+3·5	2	0·62	−0·16
	Falmouth	70	55	61·9	+2·6	1	0·11	−0·63
	Plymouth	72	54	62·4	+3·2	2	0·03	−1·06
9. IRELAND, N.	Dunfanaghy	67	52	60·9	+6·2	5	0·41	?
	Greencastle	72	48	60·0	+5·3	4	0·47	−0·51
	Armagh	70	50	61·0	+5·5	3	0·02	−0·70
	Donaghadee	69	52	60·0	+4·6	5	0·13	?
10. IRELAND, S.	Kingstown	68	56	61·8	+5·4	2	0·06	−0·55
	Parsonstown	71	57	63·5	+7·7	3	0·13	−0·73
	Roche's Point	70	55	63·0	+6·2	0	—	−1·18
	Valencia	69	51	61·6	+5·2	5	0·35	−0·86
SCOTLAND, N.	Sumburgh Head	65	49	57·0	+4·7	4	1·13	+0·63
	Stornoway	65	42	55·8	+3·4	4	0·47	?
	Thurso	71	48	59·9	+7·2	4	0·57	−0·21
	Wick	68	46	58·2	+5·3	4	0·36	−0·32
——	Scilly (St. Mary's)	70	58	62·9	+3·7	3	0·05	−1·03
	Jersey (Noirmont)	69	54	63·2	+3·2	2	0·05	−0·65

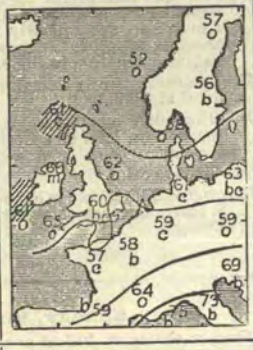
The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending September 9, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, September 3.

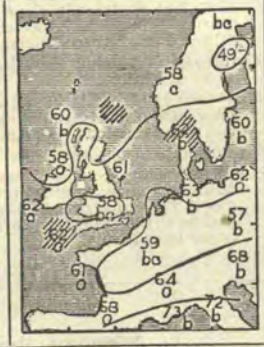
Weather fine and bright at the southern and most of our eastern stations; overcast and unsettled in the W., with slight rain at Valentia and in N. of Ireland, as well as the W. and N. of Scotland.

Temperature fallen on the eastern shores of the North Sea, higher over these Islands and France, the maximum readings exceeding 70° in the south-eastern and central parts of England and E. of Scotland.

Wind westerly to south-westerly on our coasts, easterly over France; moderate generally, but blowing strongly at Valentia and Stornoway.

Sea rough at Valentia and in the Minch.

Barometer falling except on the eastern shores of the North Sea; change slight generally but brisk in the N. of Scotland. Readings highest over the Channel and N. of France, lowest to the northward of these Islands.



Wednesday, September 4.

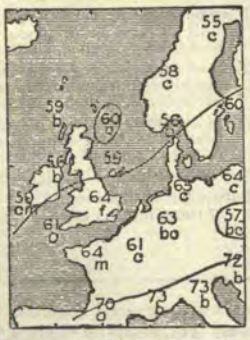
Weather fine and bright at most of the more eastern stations (though foggy in some places), overcast and damp in the W.; became cloudy generally later in the day, with slight rain in S.W.

Temperature a few degrees lower over United Kingdom, the maxima, however, again exceeding 70° in the central and south-eastern parts of England and E. of Scotland.

Wind moderate from the eastward over France and our S.W. coasts, fresh from S.W. in the extreme N., and light and variable elsewhere.

Sea rather rough near the Scilly and Shetland Isles, and in the Skager Rack.

Barometer rising N., falling S. Pressure highest over Germany, and comparatively low both to the north-westward of Norway and over Spain.



Thursday, September 5.

Weather clear in N.W., cloudy, foggy, or misty elsewhere, slight rain subsequently falling in S. and S.W.

Temperature slightly lower over these Islands and on the eastern shores of the North Sea, higher over France; the maxima at the central stations varying from 71° to 76°, being rather higher than on the preceding day.

Wind very light and variable.

Sea slight or smooth.

Barometer still rising over Scandinavia, but falling in these Islands; highest over Denmark, lowest off our N.W. and S.W. coasts.

Friday, September 6.

Weather fine except in the extreme W., though still foggy in places, rain at Stornoway, subsequently falling at all our northern and north-western stations.

Temperature risen W., fallen E., and over France, change in London as much as 7°. Maxima exceeding 70° at all the inland and eastern stations and reaching 78° at Nottingham.

Wind south-westerly to westerly on all our coasts, light to moderate in force except at Stornoway.

Sea slight except off the Hebrides.

Barometer falling over Scandinavia and Scotland, rising elsewhere. Readings highest over the Bay of Biscay and lowest to the northwestward of Scotland. A small depression lying over the North Sea.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, September 7. *Weather* fine and bright except in the extreme W. and in Scandinavia, a great deal of fog however prevailing. Heavy rain subsequently fell at Holyhead and smaller amounts at other western stations while thunder and lightning occurred in the S.W. *Temperature* scarcely changing, varying from 64° in the S.W. to 54° at Wick. *Wind* very light on all coasts and variable in direction in early part of day; later on a fresh southerly breeze springing up at Scilly. *Sea* slight to calm. *Barometer* falling somewhat over the Bay of Biscay and our S. coast, but not changing much in any part of western Europe.
		Sunday, September 8. *Weather* cloudy or dull at our eastern and south-eastern stations, but moderately clear skies elsewhere; fog at a few places. Subsequently becoming unsettled, sharp showers falling over southern England and heavy rain in Scotland. *Temperature* changing very little, varying from 64° at Dover to 53° at Thurso. *Wind* light on all coasts in morning and variable in direction; later in the day becoming southerly (except in the S.E.) and increasing to a fresh S.S.E. gale at Stornoway. *Sea* moderate to smooth. *Barometer* rising both in Norway and off our S.W. coasts, falling elsewhere, very uniform at 8 a.m., but moderate gradients appearing over Scotland in the evening. Readings highest to the south-westward and lowest to the northward of our Islands.
		Monday, September 9. *Weather* clear over western and southern France, cloudy or dull in most other places with rain at Valentia, Oxford, and many Scotch stations. Rainfall however very slight. *Temperature* rising slightly in N.W. and W., inclined to fall elsewhere, particularly over France; readings varying from 62° in the S.W. to 53° at Thurso. *Wind* generally westerly on our coasts, but drawing into S. in Scandinavia and into N. in France; moderate or light, except at some of the Scotch stations. *Sea* rather rough at Portishead and Ardrossan. *Barometer* falling generally at 8 a.m., but rising over the whole of these Islands later in the day—briskly in the N.W.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Meteorological Office,
116, Victoria Street, S.W.

(Signed) ROBERT H. SCOTT,
Secretary.

LONDON: Printed by George E. Eyre and William Spottiswoode
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 391.—150.—9/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 32.] WEEK ENDING MONDAY, SEPTEMBER 16, 1878. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	70	45	57	3 above.	4	9	0 (average).
	2. ENGLAND, NORTH-EAST	72	41	56	0 (average).	3	6	1 less.
	3. ENGLAND, EAST	74	43	57	1 below.	3	4	2 less.
	4. MIDLAND COUNTIES	75	38	56	2 below.	2	1	7 less.
	5. ENGLAND, SOUTH	75	40	59	0 (average).	1	1	6 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	74	42	57	2 above.	5	16	2 more.
	7. ENGLAND, NORTH-WEST	70	42	56	1 below.	5	9	2 less.
	8. ENGLAND, SOUTH-WEST	70	46	59	0 (average).	1	2	7 less.
	9. IRELAND, NORTH	69	46	58	2 above.	5	7	1 more.
	10. IRELAND, SOUTH	70	44	59	2 above.	4	6	4 less.

General Remarks.

Weather generally fine and quiet except on last two days when it was rough and unsettled. Temperature showing little departure from the average, exceeding it slightly in the W. and falling short of it in the E. The nights cool at the inland stations.

Rainfall still below the mean except in the north-western districts and in "Scotland, E.", but the deficit not large except in "England S." and "S.W." and the "Midland Counties."

Wind generally light from the westward, but on the 12th there was a sharp squall from N., while on the 15th and 16th a fresh gale was experienced all over the country.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	69	45	57·1	+3·6	4	1·16	+0·58
	Aberdeen	69	45	57·1	+2·6	2	0·27	−0·57
	Glenalmond	69	45	54·1	−0·4	6	1·56	?
	Leith	70	48	59·4	+4·7	3	0·49	−0·14
2. ENGLAND, N.E.	Shields	72	44	57·4	+1·6	2	0·53	−0·13
	Durham	70	43	55·8	−0·2	3	0·59	−0·02
	Scarborough	68	46	56·6	−0·1	3	0·71	−0·02
	York	72	41	55·9	−0·7	4	0·47	−0·26
	Kelstern (Lincolnshire) ℳ	68	41	55·4	−1·9	2	0·61	+0·01
3. ENGLAND, E.	Yarmouth	67	48	57·9	−0·8	3	0·93	+0·21
	Cambridge	74	43	58·3	−0·3	2	0·13	−0·42
	Audley End (Saffron Walden) ℳ							
	Rothamsted	71	43	56·0	−2·7	3	0·15	−0·51
4. MIDLAND COUNTIES	Nottingham	74	38	56·3	−1·3	4	0·16	−0·55
	Loughborough	75	41	57·3	−0·6	2	0·16	?
	Leicester	67	43	55·0	−3·2	2	0·25	?
	Shrewsbury ℳ							
	Hereford ℳ	71	42	54·5	−3·7	1	0·02	−0·77
	Cirencester	72	39	55·6	−2·9	3	0·16	−0·72
	Oxford	70	44	56·3	−2·3	1	0·02	−0·68
5. ENGLAND, S.	London	75	45	64·0	+4·8	2	0·11	−0·52
	Marlborough ℳ	73	41	56·4	−2·3	1	0·16	−0·75
	Strathfield Turgiss ℳ	75	40	56·8	−2·3	1	0·13	−0·57
	Dover	69	52	60·0	+0·5	1	0·19	−0·51
	Hastings	70	48	59·0	−0·5	1	0·11	−0·56
	Hurst Castle	71	45	59·9	+0·6	1	0·05	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	64	42	55·6	+1·9	6	3·82	?
	Glasgow	64	49	56·4	+1·8	5	1·10	−0·04
	Ardrossan	64	53	59·3	+4·7	5	1·26	+0·25
	Silloth	74	45	59·5	+3·8	5	1·19	+0·28
	Douglas (Isle of Man)	65	42	54·5	−1·6	4	0·74	?
7. ENGLAND, N.W.	Stonyhurst	68	43	53·9	−2·8	5	1·76	+0·42
	Manchester	70	42	53·9	−3·1	5	0·82	−0·18
	Liverpool Observatory (Bidston)	69	50	58·0	+0·8	3	0·37	−0·65
	Holyhead	66	51	58·1	+1·1	5	0·62	−0·21
8. ENGLAND, S.W.	Pembroke	66	51	58·3	+0·3	1	0·18	−0·79
	Portishead	70	46	58·3	−0·3	2	0·17	−0·61
	Falmouth	67	52	60·5	+1·2	1	0·15	−0·59
	Plymouth	70	47	59·2	0·0	1	0·11	−0·98
9. IRELAND, N.	Dunfanaghy	67	48	58·5	+3·8	5	0·46	?
	Greencastle	69	46	58·0	+3·3	6	1·29	+0·31
	Armagh	66	46	56·4	+0·9	4	0·69	−0·03
	Donaghadee	66	46	57·0	+1·6	4	0·45	?
10. IRELAND, S.	Kingstown	66	50	58·8	+2·4	3	0·36	−0·25
	Parsonstown	70	44	58·2	+2·4	4	0·70	−0·16
	Roche's Point	70	49	59·4	+2·6	2	0·76	−0·42
	Valencia	67	46	58·7	+2·3	6	0·53	−0·68
SCOTLAND, N.	Sumburgh Head	61	44	52·6	+0·3	7	1·96	+1·46
	Stornoway	63	46	53·7	+1·3	7	1·98	?
	Thurso	68	46	56·2	+3·5	5	1·30	+0·52
	Wick	65	47	55·0	+2·1	4	0·74	+0·06
——	Scilly (St. Mary's)	70	54	61·8	+2·6	2	0·05	−1·03
	Jersey (Noirmont)	71	52	61·3	+1·3	1	0·11	−0·59

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending September 16, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, September 10.

Weather fine and bright over Denmark, England, and the greater part of Ireland and Scotland; cloudy or dull elsewhere. Rain is reported from Stornoway, mist from Liverpool. Weather continued dry all day except in the extreme N. of Scotland.

Temperature rather lower generally; very uniform at 8 A.M., while the maxima during the day varied from 60° in the N. to 70° in the southern and central districts.

Wind light on all coasts and variable in direction; N.W. to N.E. breezes prevailing in the S., while in the N. the wind was westerly to southerly.

Sea slight or smooth.

Barometer rising except over Scandinavia, the increase having been very brisk in Scotland. At our extreme northern stations pressure began to decrease again later in the day.

Wednesday, September 11.

Weather very fine except in the extreme N. and W., but a good deal of fog and mist prevailing. Rain fell subsequently in N. and W., but not heavily.

Temperature higher in the N. and N.W., lower in the S. and S.E. At the central stations the weather was rather cool, and the thermometer at Thurso was 12° higher than that at Oxford.

Wind light to strong from S.W. on our western and north ern coasts and over the North Sea, while calms prevail in the S.E. of England, and easterly breezes over France.

Sea rough round the Shetlands and Hebrides.

Barometer rising somewhat generally, but falling a little in the N.W. Readings highest over N. Germany, lowest to the northward of Scotland. Later in the day mercury falling except in the S.W.; most at Stornoway.

Thursday, September 12.

Weather unsettled, rain falling in N.W. and N.E. and sky cloudy or overcast in most other places, except France and our south-eastern stations. A sharp squall passing southward along our E. coast between 1 and 2 p.m. but rain not heavy except at Yarmouth.

Temperature higher in S. but lower elsewhere; several degrees over Scotland. Readings varying from 65° at Dover to 51° at Stornoway.

Wind northerly to north-westerly on most of our coasts, but south-westerly both at our south-eastern stations and on the eastern shores of the North Sea; blowing freshly in places. Sudden squall along our E. coast later in day, and wind in the N.E. rising to a fresh gale.

Sea rather rough at Kingstown and Ardrossan.

Barometer rising in N.W., falling elsewhere. A large depression lying over the N. of Sweden and small local disturbances over the North Sea. The latter subsequently passing southward along our E. coast.

Friday, September 13.

Weather fine and bright except in the extreme N. of Scotland, the W. of Norway, the Netherlands, and E. of France, where the sky is clouded, with rain at Stornoway, Skudesnaes, and the Helder. Slight rain subsequently falling in the N. and W.

Temperature rather higher in Scotland, but lower elsewhere; several degrees over southern England. Readings low at central stations (York 49°), but uniform in other parts of our Islands.

Wind southerly at some of the Scotch stations, but westerly to north-westerly generally over the United Kingdom, northerly in the N. of France, and north-easterly over the Bay of Biscay. Blowing freshly in the N.

Sea rough round the Shetlands and Hebrides as well as off Yarmouth and Cape Gris Nez.

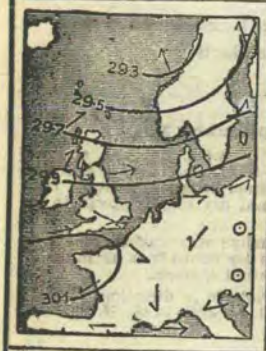
Barometer falling in the N. and W., rising in the S.E. Pressure highest in the S.W. (Scilly 30·24 ins.), lowest over the Gulf of Bothnia (Haparanda 29·07 ins.).

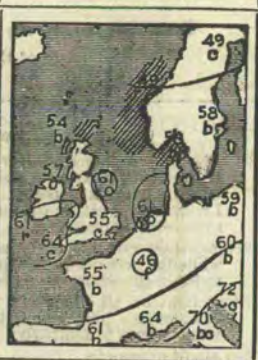
(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.





Saturday, September 14.

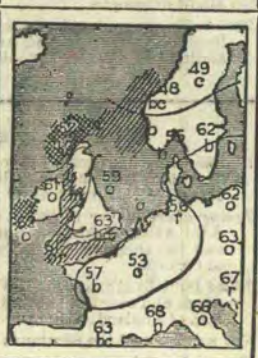
Weather wet at all the Norwegian stations and at Valentia, cloudy over Ireland and the N. and W. of England; elsewhere the sky clear or moderately so. Rain fell at most of the western stations, and in the N.E. during the day.

Temperature lower over France and higher elsewhere than on the previous day, varying from 64° at Scilly to 54° in Caithness. The maxima exceeded 70° at the inland stations, but ranged from 60° to 68° elsewhere.

Wind westerly on our coasts, but drawing into S.W. on the eastern shores of the North Sea, and into N.W., N., and N.E. over France. In the S. of Norway it blows strongly.

Sea rough in the N. and N.E.

Barometer rising in France, falling over the whole of these Islands and the North Sea. Readings highest at Brest, lowest near Christiansund.



Sunday, September 15.

Weather fair in the S.E. and over France, dull or cloudy elsewhere, with rain in some places. Rain subsequently fell generally, the amounts at some stations being large.

Temperature higher and very uniform, varying from 68° to 57°. In London thermometer reaching 72° during the day, but not touching 70° elsewhere.

Wind south-westerly on most coasts, but drawing into S.S.E. in the N. of Scotland, blowing strong generally, and reaching a gale in the Hebrides and Shetlands. Strong south-westerly gale blowing over the whole country later in the day.

Sea rough to high, except in the E.

Barometer falling, except in Scandinavia, rapidly in the N. Deep depression advancing to N.W. coast of Scotland and passing slowly eastward during the day.

Monday, September 16.

Weather fine, except in the extreme N. of Scotland and over Norway, continuing fair generally all day. Some rain falling to the northward of Aberdeen and in the N.E. of England.

Temperature lower in nearly all places, from 5° to 12° in the N. and W., and varying from 60° in the S.W. to 49° at Wick.

Wind still south-westerly in Caithness and the Shetlands, but veered to W. or N.W. elsewhere; blowing strongly on nearly all coasts, and a gale in the N.W., N.E., and N., falling off gradually later in the day.

Sea rough to high, except in the E.

Barometer rising over the whole of these Islands all day, the change being rapid in the N. and brisk generally. The depression noticed on the 15th travelling away over Scandinavia.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Meteorological Office,
116, Victoria Street, S.W.

(Signed) ROBERT H. SCOTT,
Secretary.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 391.—150.—9/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 33.] WEEK ENDING MONDAY, SEPTEMBER 23, 1878. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.

2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).

3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.

4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.

5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.

6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).

7. ENGLAND, N.W.—Stonyhurst, Manchester Liverpool Observatory (Bidston), Holyhead.

8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.

9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.

10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	67	39	51	3 below.	4	7	5 less.
	2. ENGLAND, NORTH-EAST	69	37	52	5 below.	5	6	1 less.
	3. ENGLAND, EAST	68	35	53	6 below.	6	6	1 more.
	4. MIDLAND COUNTIES	74	35	53	6 below.	5	6	1 less.
	5. ENGLAND, SOUTH	68	35	54	5 below.	5	9	1 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	64	37	52	3 below.	6	18	3 more.
	7. ENGLAND, NORTH-WEST	66	39	53	4 below.	5	20	9 more.
	8. ENGLAND, SOUTH-WEST	65	43	55	4 below.	5	18	9 more.
	9. IRELAND, NORTH	66	39	51	4 below.	6	11	4 more.
	10. IRELAND, SOUTH	67	35	53	3 below.	6	14	4 more.

General Remarks.

Weather cloudy, rainy, and very unsettled. Temperature below the mean in all districts, the deficit ranging from three degrees in Scotland and South Ireland, to six degrees over eastern and central England. Maximum readings never so high as 70° excepting on the 17th, when 74° was recorded in some parts of central England; nights warm at the commencement of week, but much cooler afterwards, and thermometer several degrees below 40° in many places on the nights of 19th and 20th.

Rainfall very frequent but not greatly exceeding mean excepting in western England, where some very heavy falls occurred on the 22nd.

Wind strong and gusty from W. or S.W. at commencement of week, afterwards veering to northward and subsiding in force, but backing to southward again on 21st, and blowing strongly from that quarter in west on the 22nd.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	65	41	50·6	−2·9	5	0·20	−1·54
	Aberdeen	67	41	52·1	−2·4	3	0·79	−0·05
	Glenalmond	66	39	50·7	−3·8	5	1·03	?
	Leith	67	42	52·0	−2·7	4	0·65	+0·02
2. ENGLAND, N.E.	Shields	68	40	51·5	−4·3	6	0·84	+0·18
	Durham	69	38	50·9	−5·1	4	0·83	+0·22
	Scarborough	66	42	52·5	−4·2	5	0·22	−0·51
	York	68	37	52·0	−4·6	5	0·77	+0·04
	Kelstern (Lincolnshire) ℳ	66	38	50·9	−6·4	5	0·42	−0·18
3. ENGLAND, E.	Yarmouth	67	41	53·4	−5·3	6	0·84	+0·12
	Cambridge	68	40	53·9	−4·7	4	0·29	−0·26
	Audley End (Saffron Walden) ℳ	63	35	51·5	−7·3	5	0·46	?
	Rothamsted	64	39	51·5	−7·2	7	0·96	+0·30
4. MIDLAND COUNTIES	Nottingham	74	39	53·1	−4·5	6	0·70	−0·01
	Loughborough	74	39	53·7	−4·2	5	0·57	?
	Leicester	67	40	51·8	−6·4	5	0·57	?
	Shrewsbury ℳ							
	Hereford ℳ	64	35	52·6	−5·6	3	0·08	−0·71
	Cirencester	62	35	51·1	−7·4	5	1·19	+0·31
	Oxford	63	40	53·0	−5·6	5	0·75	+0·05
5. ENGLAND, S.	London	66	40	54·0	−5·2	4	0·52	−0·11
	Marlborough ℳ	64	35	52·1	−6·6	6	1·22	+0·31
	Strathfield Turgiss ℳ	68	36	52·2	−6·9	6	0·52	−0·18
	Dover	65	45	55·7	−3·8	5	0·38	−0·32
	Hastings	62	42	53·5	−6·0	5	1·48	+0·81
	Hurst Castle	66	42	55·9	−3·4	6	1·32	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	60	44	50·2	−3·5	7	3·82	?
	Glasgow	62	44	52·1	−2·5	5	1·48	+0·34
	Ardrossan	63	44	52·8	−1·8	7	1·15	+0·14
	Silloth	64	37	52·9	−2·8	5	1·29	+0·38
	Douglas (Isle of Man)	63	39	51·7	−4·4	6	1·47	?
7. ENGLAND, N.W.	Stonyhurst	62	42	51·1	−5·6	5	2·34	+1·00
	Manchester	63	39	51·5	−5·5	5	2·35	+1·35
	Liverpool Observatory (Bidston)	66	42	52·8	−4·4	5	2·62	+1·60
	Holyhead	66	49	54·9	−2·1	5	0·61	−0·22
8. ENGLAND, S.W.	Pembroke	62	47	55·0	−3·0	5	1·22	+0·25
	Portishead	65	43	55·0	−3·6	4	2·24	+1·46
	Falmouth	65	49	55·8	−3·5	6	2·30	+1·56
	Plymouth	65	44	55·5	−3·7	6	1·52	+0·43
9. IRELAND, N.	Dunfanaghy	60	42	52·3	−2·4	7	1·18	?
	Greencastle	62	42	50·8	−3·9	7	1·47	+0·49
	Armagh	64	39	50·1	−5·4	5	1·01	+0·29
	Donaghadee	66	43	51·4	−4·0	5	0·67	?
10. IRELAND, S.	Kingstown	67	44	52·0	−4·4	6	0·68	+0·07
	Parsonstown	61	35	53·0	−2·8	6	1·41	+0·55
	Roche's Point	63	44	53·3	−3·5	6	1·80	+0·62
	Valencia	64	46	55·0	−1·4	7	1·70	+0·49
SCOTLAND, N.	Sumburgh Head	57	41	49·5	−2·8	4	0·69	+0·19
	Stornoway	57	41	49·3	−3·1	5	0·60	?
	Thurso	60	36	50·5	−2·2	7	0·62	−0·16
	Wick	61	33	50·0	−2·9	3	0·26	−0·42
——	Scilly (St. Mary's)	66	48	57·6	−1·6	6	2·99	+1·91
	Jersey (Noirmont)	66	50	57·9	−2·1	5	1·73	+1·03

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending September 23, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, September 17.

Weather fine at some of our eastern stations, but generally cloudy or dull; rain falling in N.W. and becoming general later in day.

Temperature lower Norway and the E. and S. of France, higher these Islands, several degrees in the N.E.; maximum readings varying between 65° and 68° at central stations.

Wind north-easterly in southern half of Bay of Biscay, westerly to south-westerly in all other parts of Western Europe; light in force over France, but blowing strong to a gale on our coasts and over the North Sea, falling lighter later in day.

Sea rough, except on E. coast.

Barometer rising on the eastern shores of the North Sea, and over France, falling again over these Islands. Depression still shown off Norwegian coast.

Wednesday, September 18.

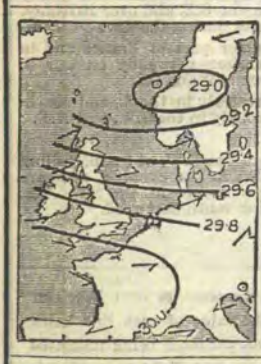
Weather clear or fine in N. and W., overcast and cloudy elsewhere. Rain falling in the S.E. of England, N.E. of France, the Netherlands and S. of Norway, and subsequently becoming general. Weather fair generally in evening.

Temperature higher in the S.E., several degrees lower in the N. and W.; readings varying from 63° at Hurst Castle to 48° at Thurso and Moville. Maxima ranging between 52° and 66°.

Wind south-westerly in S.E., and over Denmark and Norway, westerly to west-north-westerly generally; fresh to strong in force at 8 a.m., blowing moderate to fresh gale in W. later in day.

Sea rough in S., S.W., and N.

Barometer rising in the W. and N.W. of our Islands, and over Sweden, falling elsewhere. Readings highest over the Bay of Biscay, lowest off the W. coast of Norway, but small subsidiary depressions over Southern England. Pressure increasing everywhere in the evening.



Thursday, September 19.

Weather fine and bright over nearly the whole of England, the E. of Scotland and N.E. of France, cloudy or dull in most other places, with rain at Greencastle and in the S. of Scandinavia. Rain falling generally during the day.

Temperature many degrees lower in the S.E. of England, fallen slightly at most stations; readings varying from 58° at Scilly to 46° at Wick.

Wind still easterly in the W. of France, but westerly on all our coasts and over the North Sea; fresh to moderate in force, except at some western ports.

Sea rough in the S. and S.W. as well as at Liverpool and off the W. and S. of Norway.

Barometer rising except over Norway and Sweden; centre of the depression near Christiansund, the highest readings still lying over western France. Pressure giving way in the S. of Ireland in evening, and small subsidiary passing eastward.

Friday, September 20.

Weather cloudy or dull over the Netherlands and E. of France as well as in the extreme N. of Scotland; clear or moderately so elsewhere. Rain falling at the Helder at 8 a.m., and in many other places during the day.

Temperature lower except in the N. of Ireland. Readings varying from 56° at Scilly to 45° at Wick. The night also cold, thermometer in the shade falling to 33° at Wick, to 37° at York and 40° at our other inland stations.

Wind northerly to north-westerly on all our coasts; strong in force in the W. and S.W.

Sea rough in the S.W., at the Scaw and Christiansund.

Barometer falling in S.E., rising quickly in N., N.W., and N.E. The large depression still in the N. of Scandinavia, but a small disturbance shown off the Dutch coast. Readings highest off the W. of Ireland, and barometer rising everywhere in the afternoon.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, September 21.

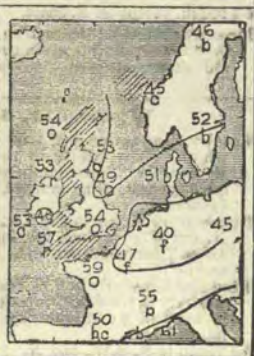
Weather dull at some of our western and south-western stations and in the W. of Norway, but very fine and bright over the greater part of western Europe. Rain subsequently setting in in the W. and N., half an inch falling at Valentia and an inch and a quarter at Cork.

Temperature not changing much, but falling at most stations at 8 a.m., rising briskly afterwards. Maxima uniform over the country, varying from 54° in the extreme N. to 62° in the S.

Wind light or moderate in force; from W. on most of our coasts, and from N. and N.E. over France; a southerly breeze, however, appearing at Valentia, increasing to a gale later in day.

Sea moderate to smooth except at Christiansund in the morning, but becoming rough in the S. of Ireland in the afternoon.

Barometer falling at Valentia, and decrease subsequently becoming brisker and general.



Sunday, September 22.

Weather overcast except in Sweden and Denmark, with rain in N.W., a threatening appearance in the S., and fog over the N.E. of France. Rain heavy and general during day or following night.

Temperature falling over the greater part of France, but rising briskly in Brittany and on most of our coasts. Readings low over the N. of England, uniform elsewhere; thermometer reaching 60° only at Oxford, Hurst Castle, Valentia, and Thurso.

Wind southerly over the N. of France, the North Sea, and on nearly all our coasts; light in force in the E., strong to a gale in the W. Strong westerly winds in the S.W. in the afternoon, and southerly wind, becoming strong and squally in the E.

Sea rough W. and S.

Barometer falling except at Scandinavian and Danish stations, change exceeding half an inch in W. Large depression lying off N.W. coast of Scotland. Small subsidiary passing eastward over our southern stations.

Monday, September 23.

Weather fine at some of the W. of England stations but cloudy or dull generally, with rain in the S.E. and over Brittany. Slight rain falling in most places during the day.

Temperature rising over the greater part of France and in Norway, falling quickly elsewhere; rapidly on our S. coast. Maxima uniform between 55° and 60°.

Wind north-westerly in the W., westerly in the S., and south-easterly in the E., blowing strongly in the S.W. and N.E.

Sea rough in the N. and at Scilly.

Barometer recovering somewhat in the S.W. at 8 a.m., falling elsewhere, rapidly in the S.E.; in the evening, pressure increasing in the N. Still decreasing in the S.E. The depression apparently travelling south-eastward.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 391.—150.—9/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 34.] WEEK ENDING MONDAY, SEPTEMBER 30, 1878. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	63	37	50	1 below.	5	14	7 more.
	2. ENGLAND, NORTH-EAST	65	36	52	1 below.	5	8	2 more.
	3. ENGLAND, EAST	71	32	53	3 below.	5	5	1 less.
	4. MIDLAND COUNTIES	72	33	54	1 below.	4	4	5 less.
	5. ENGLAND, SOUTH	69	31	55	1 below.	2	1	6 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	64	41	53	1 above.	6	13	4 more.
	7. ENGLAND, NORTH-WEST	68	36	54	0 (average).	7	17	6 more.
	8. ENGLAND, SOUTH-WEST	66	39	56	1 below.	4	6	4 less.
	9. IRELAND, NORTH	64	42	54	2 above.	6	16	10 more.
	10. IRELAND, SOUTH	66	41	56	2 above.	5	8	3 less.

General Remarks.

Weather generally unsettled, especially in the west and north. Temperature a little above the mean in Ireland and the west of Scotland, but rather below it in other districts. The thermometer lowest at the beginning of week, when some night frosts occurred over eastern and central England, but highest towards its close, the maxima on the 28th and 29th exceeding 70° in those districts.

Rainfall a little below the mean in the east and south but greatly above it in some of the western and northern districts. At several of the northern and north-western stations rain fell every day.

Wind very variable at beginning of week, then generally westerly or south-westerly, but veering to N. on Monday evening. Light or moderate in force generally, but blowing freshly in many places on the 30th.

The data from which the summary on the preceding page has been calculated are as follow:—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	59	40	49·4	−1·0	6	1·14	+0·50
	Aberdeen	60	37	50·7	−0·3	5	1·68	+0·89
	Glenalmond	61	39	49·3	−1·8	4	1·30	?
	Leith	63	43	52·0	+0·7	5	1·27	+0·73
2. ENGLAND, N.E.	Shields	61	43	51·9	−0·7	6	0·67	+0·04
	Durham	62	36	51·9	−1·0	5	0·91	+0·27
	Scarborough	60	42	52·4	−0·8	4	0·49	−0·21
	York	63	37	52·6	−0·7	6	1·10	+0·41
	Kelstern (Lincolnshire) ℳ	65	36	51·7	−2·2	6	0·93	+0·24
3. ENGLAND, E.	Yarmouth	63	42	53·0	−2·2	5	0·96	+0·27
	Cambridge	71	35	53·2	−1·9	3	0·36	−0·16
	Audley End (Saffron Walden) ℳ	66	32	51·9	−3·4	5	0·32	?
	Rothamsted	67	35	52·6	−2·7	5	0·31	−0·36
4. MIDLAND COUNTIES	Nottingham	72	34	54·2	0·0	5	0·56	−0·11
	Loughborough	70	33	53·8	−0·6	4	0·46	?
	Leicester	67	34	53·4	−1·4	5	0·45	?
	Shrewsbury ℳ	65	33	52·8	−1·7	4	0·87	?
	Hereford ℳ	67	34	54·6	−0·7	2	0·11	−0·66
	Cirencester	65	34	52·5	−3·0	3	0·21	−0·63
	Oxford	65	34	52·9	−2·5	2	0·27	−0·41
5. ENGLAND, S.	London	65	39	54·0	−1·8	2	0·13	−0·51
	Marlborough ℳ	69	33	53·6	−2·1	3	0·16	−0·70
	Strathfield Turgiss ℳ	69	31	52·7	−3·2	1	0·10	−0·58
	Dover	65	45	56·0	−0·3	3	0·13	−0·59
	Hastings	64	43	54·9	−1·5	2	0·22	−0·49
	Hurst Castle	66	42	56·6	+0·3	2	0·12	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	62	41	51·4	+0·8	7	0·96	?
	Glasgow	60	43	52·2	+1·0	6	2·18	+1·13
	Ardrossan	61	46	53·5	+2·1	6	0·70	−0·32
	Silloth	64	44	54·5	+1·9	7	1·18	+0·25
	Douglas (Isle of Man)	62	42	53·4	+0·2	5	1·64	?
7. ENGLAND, N.W.	Stonyhurst	68	36	53·5	0·0	7	2·03	+0·64
	Manchester	64	38	53·0	−0·9	7	1·59	+0·59
	Liverpool Observatory (Bidston)	66	46	54·7	+0·5	7	1·16	+0·13
	Holyhead	64	47	56·4	+2·2	7	1·85	+0·82
8. ENGLAND, S.W.	Pembroke	61	45	55·6	+0·3	4	0·35	−0·64
	Portishead	66	39	55·0	−0·7	3	0·24	−0·56
	Falmouth	64	48	56·8	−0·1	5	1·01	+0·16
	Plymouth	65	41	55·4	−1·3	4	0·61	−0·39
9. IRELAND, N.	Dunfanaghy	62	48	55·8	+4·2	7	1·45	?
	Greencastle	64	43	54·0	+2·4	7	1·39	+0·32
	Armagh	63	42	53·6	+1·1	5	2·47	+1·70
	Donaghadee	62	43	53·7	+1·3	5	1·06	?
10. IRELAND, S.	Kingstown	65	45	55·8	+2·0	4	0·82	+0·15
	Parsonstown	66	41	56·1	+3·1	5	0·86	+0·02
	Roche's Point	65	44	55·9	+1·6	4	0·46	−0·66
	Valencia	62	49	56·2	+2·3	7	0·86	−0·55
SCOTLAND, N.	Sumburgh Head	56	38	49·0	−0·4	4	1·35	+0·80
	Stornoway	56	41	49·0	−0·5	7	0·94	?
	Thurso	60	42	50·2	+0·5	7	2·17	+1·38
	Wick	61	39	49·8	−0·1	7	1·53	+0·85
——	Scilly (St. Mary's)	62	52	58·3	+1·4	5	0·28	−0·82
	Jersey (Noirmont)	68	48	57·2	−0·1	3	0·55	−0·22

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending September 30, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, September 24.

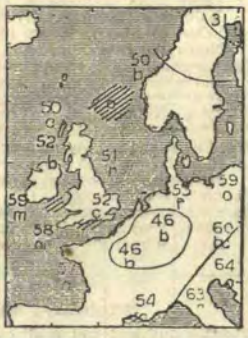
Weather cloudy or dull over the S. of Scandinavia and in many parts of France, with rain in Brittany, but sky nearly clear over these islands. During the day rain falling at all but our extreme south-eastern stations, about 0·5 in. in the N.W.

Temperature higher in W. and N., several degrees lower in the S.E., and slightly lower or unchanged elsewhere. Readings at 8 a.m. varying from 56° in the S.W., to 39° at Oxford, but in early morning the minima had fallen to 34° at Oxford and Nottingham.

Wind fresh easterly over the North Sea and our northern coasts; moderate northerly in the W., and light and variable in the S.E.

Sea moderate to slight.

Barometer falling on the eastern shores of the North Sea, rising elsewhere till the evening. At 6 p.m. eastern side of a fresh depression appearing off the N.W. coast of Scotland, and barometer falling briskly.



Wednesday, September 25.

Weather fine in the S.E., dull and rainy generally elsewhere, with fog and mist in many places. In the S.E. heavy rain falling in the evening, but sky clearing elsewhere.

Temperature higher except in Scotland and the E. of France, the rise exceeding 10° over Central England. Readings varying from 59° at Valentia to 49° in Yorkshire, the maxima ranging between 55° and 60°.

Wind westerly in Ireland, south-westerly to southerly in the E. and S.; but easterly in Norway. Force fresh at some western stations and strong in the N.E. Later in the day becoming north-westerly, except in the S.E.

Sea moderate to slight, except off the Shetlands and at Pembroke and Hurst Castle.

Barometer falling briskly in the N. rising in the S.E. and over France. Large depression lying to the northward of Scotland. Disturbance moving eastward subsequently, and barometer rising in the W. and N. but small depression in the S.E. causing a decrease.

Thursday, September 26.

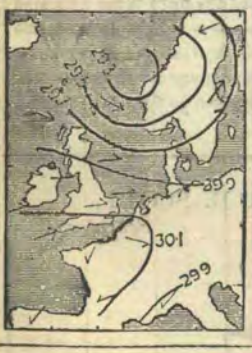
Weather cloudy or dull over Ireland, to the eastward of the North Sea, and in many parts of France, but fine and bright elsewhere. Rain falling in N. and W. during day. Thunder occurring at Oxford.

Temperature higher over the N.E. of France, but several degrees lower over these Islands. Readings varying from 56° at Scilly to 44° at Plymouth and Oxford, and 43° at Aberdeen. The maxima low generally, only exceeding 60° at a few stations.

Wind westerly on our coasts, but drawing into N. or N.W. over France, and into S. and S.E. over Scandinavia; moderate or light in force in most places.

Sea moderate to slight except in the N.

Barometer falling over Sweden, Norway, and Denmark, rising elsewhere; briskly in the W. and N. Depression lying off the W. coast of Norway, and the highest readings off our S.W. coasts.



Friday, September 27.

Weather moderately fine in the E. and S.E., but very cloudy and unsettled in most other places, with rain in Norway, the Shetlands, Wick, and Valentia; slight rain subsequently occurring at many stations.

Temperature several degrees lower in the N.E. of France and the countries to the eastward of the North Sea; much higher in these Islands, varying from 59° in the S.W. to 47° at Nairn. Maxima also higher than of late.

Wind moderate to fresh in force generally—from W. to N.W. on our coasts, from S.W. to E. in Scandinavia, and from N.W. to N.E. in France.

Sea moderate to smooth except in the Skager Rack.

Barometer falling quickly in Norway and Sweden, but rising over the British Isles and France; the recovery extending to Scandinavia later in the day.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, September 28.

Weather fine at Dover and Yarmouth, and in the S.E. of France; cloudy or overcast in most other districts, with much fog, mist, and rain. Sky dull all day.

Temperature very uniform; rather higher over England, Ireland, and the N. of France; lower elsewhere. Maxima exceeding 60° except in the N., and reaching 72° at Nottingham and 71° at Cambridge.

Wind light on our coasts from S. to W., moderate from E. over the Bay of Biscay, and strong from N.W. in Norway and Denmark.

Sea slight except in the Skager Rack.

Barometer rising except at Valentia; readings highest over France but uniform over these Islands. The decrease from the W. subsequently becoming general.

Sunday, September 29.

Weather clear over the Skager Rack, and in the W. of France, cloudy or overcast in nearly all other places, with fog in many parts of England, and rain in the E. of Scotland. Rain occurring generally during the day, 1 in. being collected at Aberdeen, 0·9 in. at Holyhead, and 0·6 in. at Nairn and Leith.

Temperature lower except at a few of our E. coast stations and in the W. of France. Readings at 8 a.m. varying from 59° at Scilly to 46° in the Shetlands, and the maxima reaching 70° at Nottingham, and ranging between 60° and 68° in other parts of Ireland and England.

Wind light and variable at our eastern stations, but moderate to fresh from E. to S.E. over France and on our S.W. coasts, and from N.W. on the eastern shores of the North Sea.

Sea moderate to smooth.

Barometer falling somewhat in the W. and S.W., rising elsewhere, readings high and uniform over these islands. The decrease from the W. subsequently becoming general.

Monday, September 30.

Weather dull and wet at all our more eastern, northern, and north-western stations, but fine in the S. and over the greater part of France. Rather squally and unsettled all day, rain falling except in the S.E.

Temperature a little higher over France, but several degrees lower elsewhere; readings at 8 a.m. varying from 61° at Dover to 43° in the Shetlands, and the maxima only exceeding 60° in the S. and S.W.

Wind fresh to strong in force from W. in the S. and from E. in the N.

Sea rough in the western half of the Channel and at Stornoway.

Barometer falling over the whole of western Europe, excepting the W. of France; briskly over these Islands, a well marked depression lying over the N. of England. Pressure recovering generally later in the day.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 391.—150.—10/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 35.] WEEK ENDING MONDAY, OCTOBER 7, 1878. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to whicl. they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	68	30	51	0 (average).	5	5	4 less.
	2. ENGLAND, NORTH-EAST	68	33	54	1 above.	4	2	5 less.
	3. ENGLAND, EAST	75	33	55	0 (average).	3	3	3 less.
	4. MIDLAND COUNTIES	75	35	56	1 above.	4	4	3 less.
	5. ENGLAND, SOUTH	75	38	58	2 above.	2	4	4 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	75	31	55	3 above.	5	9	5 less.
	7. ENGLAND, NORTH-WEST	69	34	55	1 above.	6	9	2 less.
	8. ENGLAND, SOUTH-WEST	75	46	58	2 above.	4	5	5 less.
	9. IRELAND, NORTH	67	37	56	4 above.	5	9	3 less.
	10. IRELAND, SOUTH	67	40	58	4 above.	5	14	4 more.

General Remarks.

Weather generally dull and rainy in the west and north, but fine in the south-east until quite the close of the week, when it became squally. Temperature low during the first few days, but much higher later on, especially on the 5th, when the thermometer rose to 75° in the shade at many of the English stations. Some frost occurred on the night of the 1st, and at Glenalmond (Scotland, East) the thermometer on the grass fell as low as 25° Fahrenheit.

Rainfall below the mean at all but the south Irish stations, where a very heavy fall occurred on the 7th. Showers fell on most days in the western and northern districts.

Wind northerly or north-westerly during the 1st, but southerly to south-westerly winds subsequently extending over us; remaining moderate in force, however, until the end of the week, when they increased considerably, blowing a severe gale at the south-western stations on Monday.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	65	33	50·6	+0·2	6	0·35	−0·29
	Aberdeen	64	35	51·2	+0·1	6	0·35	−0·44
	Glenalmond	64	30	50·0	−1·1	5	1·03	?
	Leith	68	34	53·7	+2·4	3	0·08	−0·46
2. ENGLAND, N.E.	Shields	65	36	54·0	+1·4	4	0·09	−0·54
	Durham	68	33	54·1	+1·2	3	0·21	−0·43
	Scarborough	64	41	55·2	+2·0	3	0·07	−0·63
	York	67	33	53·5	+0·2	5	0·37	−0·32
	Kelstern (Lincolnshire) ℳ	67	35	54·0	+0·1	3	0·35	−0·34
3. ENGLAND, E.	Yarmouth	64	40	54·2	−1·0	4	0·29	−0·40
	Cambridge	75	33	55·9	+0·8	3	0·23	−0·29
	Audley End (Saffron Walden) ℳ	72	34	55·2	−0·1	2	0·34	?
	Rothamsted	72	36	55·7	+0·4	4	0·36	−0·31
4. MIDLAND COUNTIES	Nottingham	74	35	55·9	+1·7	4	0·38	−0·29
	Loughborough	75	36	56·5	+2·1	4	0·32	?
	Leicester	72	38	56·1	+1·3	4	0·47	?
	Shrewsbury ℳ							
	Hereford ℳ	70	44	56·4	+1·1	5	0·37	−0·40
	Cirencester	72	44	56·0	+0·5	4	0·62	−0·22
	Oxford	72	41	56·8	+1·4	2	0·26	−0·42
5. ENGLAND, S.	London	75	39	58·1	+2·3	3	0·14	−0·50
	Marlborough ℳ	73	42	57·6	+1·9	2	0·65	−0·21
	Strathfield Turgiss ℳ	74	38	56·7	+0·8	2	0·46	−0·22
	Dover	64	51	58·2	+1·9	2	0·23	−0·49
	Hastings	67	49	58·8	+2·4	3	0·38	−0·33
	Hurst Castle	68	49	59·3	+3·0	2	0·61	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	66	37	53·4	+2·8	6	1·89	?
	Glasgow	63	35	54·9	+3·7	5	0·50	−0·55
	Ardrossan	63	38	54·2	+2·8	6	0·61	−0·41
	Silloth	75	31	55·9	+3·3	4	0·36	−0·57
	Douglas (Isle of Man)	62	37	54·7	+1·5	6	1·00	?
7. ENGLAND, N.W.	Stonyhurst	67	35	53·6	+0·1	5	1·20	−0·19
	Manchester	69	34	55·3	+1·4	5	0·70	−0·30
	Liverpool Observatory (Bidston)	65	39	55·0	+0·8	6	0·60	−0·43
	Holyhead	68	43	56·8	+2·6	7	1·01	−0·02
8. ENGLAND, S.W.	Pembroke	64	48	58·0	+2·7	5	1·06	+0·07
	Portishead	75	47	58·0	+2·3	2	0·22	−0·58
	Falmouth	63	50	58·3	+1·4	3	0·36	−0·49
	Plymouth	68	46	58·0	+1·3	5	0·16	−0·84
9. IRELAND, N.	Dunfanaghy	67	42	57·2	+5·6	6	1·19	?
	Greencastle	67	37	54·9	+3·3	5	0·52	−0·55
	Armagh	65	38	55·8	+3·3	4	0·73	−0·04
	Donaghadee	64	40	54·4	+2·0	4	1·05	?
10. IRELAND, S.	Kingstown	65	46	57·1	+3·3	4	1·05	+0·38
	Parsonstown	67	40	57·5	+4·5	5	1·00	+0·16
	Roche's Point	63	48	58·0	+3·7	6	1·83	+0·71
	Valencia	65	46	58·0	+4·1	5	1·59	+0·18
SCOTLAND, N.	Sumburgh Head	57	39	47·8	−1·6	6	0·82	+0·27
	Stornoway	59	36	50·0	+0·5	6	0·58	?
	Thurso	63	41	51·7	+2·0	7	0·23	−0·56
	Wick	61	35	50·6	+0·7	3	0·19	−0·49
——	Scilly (St. Mary's)	64	53	59·2	+2·3	4	0·62	−0·48
	Jersey (Noirmont)	67	53	59·6	+2·3	3	0·39	−0·38

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

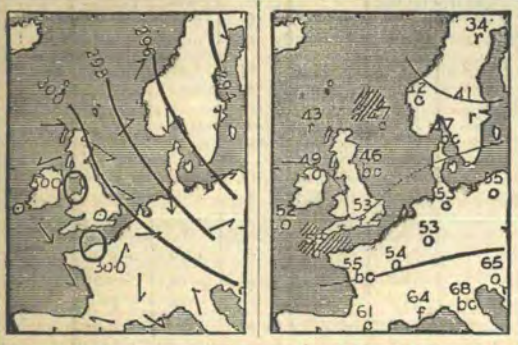
II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending October 7, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, October 1.

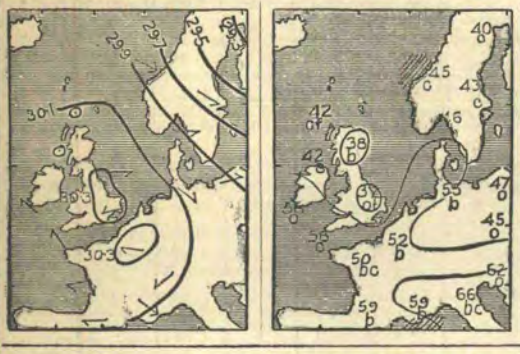
Weather overcast or wet over central and north-western England, the N. of Ireland, Stornoway, Skudesnaes, and the Baltic, moderately fine elsewhere, though rather foggy. Slight rain falling subsequently except in the N.W., W., and S.

Temperature lower in most places several degrees in the E. of England; readings varying from 58° at Scilly to 45° at York, and 38° at Nairn. Maxima in S. and W. ranging from 60° to 65°.

Wind light and variable over these Islands, light north-westerly over the North Sea and the Bay of Biscay.

Sea moderate to smooth except in western part of the Channel.

Barometer falling over Scandinavia, rising in all other places, briskly over these Islands, slightly in France. Readings uniform westward of the North Sea.



Wednesday, October 2.

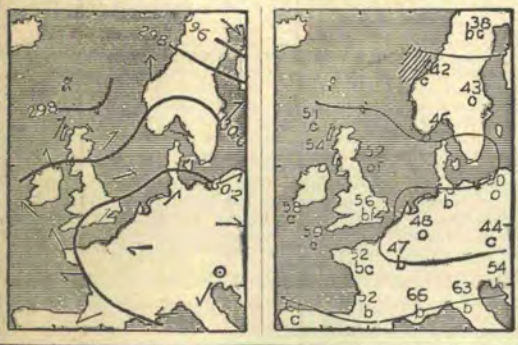
Weather very fine except in the S.W. and extreme W. and N. of the British Isles, a good deal of fog and mist prevailing. Rain subsequently falling in W. and N. and dull weather spreading over us from the westward.

Temperature lower except in the W., change amounting to 10° over central England. Readings ranging from 58° at Scilly to 37° at York and Nottingham.

Wind light and variable in the E., moderate from S.E. to S. in the S.W. and W., and from N.W. over Scandinavia. Southerly breeze extending to all our coasts later in day.

Sea moderate to smooth generally.

Barometer beginning to fall in the W., rising briskly elsewhere. A large area of high pressure lying over England and France. A slight disturbance appearing in the N.W. at evening.



Thursday, October 3.

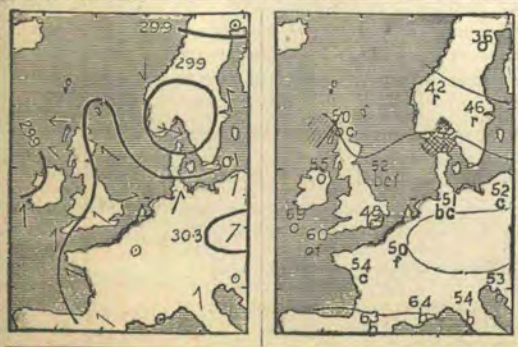
Weather cloudy or overcast in the N.W., very fine in most other districts, though a good deal of fog and mist again prevailing. Slight rain falling in W. and N. later in day. Aurora seen in N. at night.

Temperature rather lower in S. of France and little changed over Scandinavia, but very much higher elsewhere; rise exceeding 15° in the N. of England. Maxima higher generally reaching 70° in London.

Wind easterly over France, southerly to south-westerly on our coasts, and generally westerly over Sweden and Denmark. Moderate to light in force. A strong south-easterly wind rising in the S.W. in the afternoon.

Sea slight except at Christiansund.

Barometer falling except in the S. of Scandinavia. Yesterday's depression shown to the northward of Scotland and a new disturbance appearing in the S.W. in the afternoon.



Friday, October 4.

Weather fine over the greater part of France and the S.E. of England, cloudy or overcast in nearly all other places; rain falling in the N.W. of Ireland, at Nairn, and over the Baltic; fog and mist prevailing at some stations. Rain falling, except in the S.E. and S. during the day.

Temperature higher in the S.W., lower in the N. and E. Readings ranging from 60° in the S.W. to less than 50° in the inland parts of England and the N. of Scotland. The maxima ranging between 65° and 68° in the S.

Wind southerly to south-easterly on our coasts, blowing freshly at Mullaghmore and in the Hebrides, but fresh north-westerly gales prevailing in Norway and Denmark.

Sea rough off Stornoway and high in the Skager Rack.

Barometer rising in N.E., falling elsewhere; a large area of high pressure lying over Germany and France, and two depressions shown, one to the northward of Ireland, another over the S. of Norway.

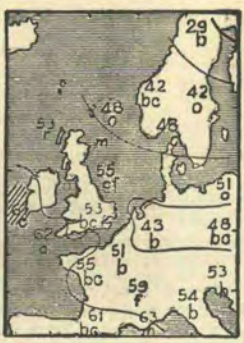
(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.

Weather during the 24 hours succeeding the date of the Charts.



Saturday, October 5.

Weather fine, though locally foggy, over the greater part of these Islands and France, but sky overcast in the N.W., with rain at Ardrossan and Stornoway. Slight rain subsequently falling in W. and N.W., but weather exceptionally fine in S.E.

Temperature rising generally, most in the N., high and uniform for the season; maxima reaching 75° at Cambridge, Portishead, and in London, 74° at Nottingham, and 72° at Oxford. Succeeding night very warm.

Wind easterly over France, southerly on all our coasts, north-westerly in Sweden; moderate in force in the W., light in the E. In the afternoon and evening wind backing to S.E. in the S.W., and freshening.

Sea moderate to smooth, except at Valentia.

Barometer rising on the eastern shores of the North Sea and E. of France; falling slowly elsewhere. The decrease becoming more pronounced in the S.W. in the evening.

Sunday, October 6.

Weather clear at some of our E. coast stations, in N. Germany, and the E. of France, cloudy or dull elsewhere, with some mist and rain in the W. Rain falling later in the day in all districts except the countries to the eastward of North Sea.

Temperature higher over the greater part of France, the S.E. of England and Scotland, little change in most other places; very high in the S.E.; the maxima reaching 70° in London and at Portishead.

Wind southerly (S.W. to S.E.) over the whole of western Europe; light in force in the E., but fresh to strong in the W. and at Skudesnaes.

Sea rough in the S.W. and N., moderate to slight elsewhere.

Barometer rising over Sweden but falling in all other places, the change being uniformly about 0·3 in. over these Islands.

Monday, October 7.

Weather at first fine in the W. and N.W. of France, and at some of our south-western stations, overcast or cloudy in nearly all other places, with a good deal of fog and mist; rain falling at Kingstown, Scarboro', and Sumburgh Head; snow at Haparanda. Rain subsequently falling over nearly the whole of these Islands.

Temperature little changed, readings varying from 61° in the S.E. to 53° in the Shetlands; the maximum readings not reaching 70° at any of our stations, but still high for the season, especially in the N.

Wind southerly over the whole country, strong in force in the S.W. Subsequently backing to S.E., and increasing to a very hard gale at Scilly, and a hard gale from S.E. to S. at several of our other western stations.

Sea rough in the S. and S.W.

Barometer falling everywhere; decrease rapid on our S.W. coasts, a large depression appearing there and advancing northward up our western coasts. Readings at its centre as low as 28·75 ins.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 705.—150.—10/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 36.] WEEK ENDING MONDAY, OCTOBER 14, 1878. [*Price 2d.*

[*Annual subscription, post paid*, 12s. 6d.

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to whicl. they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.

2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).

3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.

4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.

5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.

6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).

7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.

8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.

9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.

10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	66	40	54	7 above.	3	6	2 less.
	2. ENGLAND, NORTH-EAST	65	38	54	4 above.	2	3	4 less.
	3. ENGLAND, EAST	?73	31	54	3 above.	3	3	3 less.
	4. MIDLAND COUNTIES	68	33	54	2 above.	3	6	1 less.
	5. ENGLAND, SOUTH	67	30	55	2 above.	3	7	1 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	66	43	55	6 above.	4	17	4 more.
	7. ENGLAND, NORTH-WEST	64	41	54	3 above.	4	9	3 less.
	8. ENGLAND, SOUTH-WEST	64	39	56	2 above.	3	9	1 less.
	9. IRELAND, NORTH	64	42	54	5 above.	4	10	1 less.
	10. IRELAND, SOUTH	64	42	56	5 above.	4	7	3 less.

General Remarks.

Weather rough and unsettled generally, but sky fair in the south-east during the greater part of the week. Temperature above the mean in all places, but especially in Scotland, where the excess amounted to six or seven degrees. The maxima usually below 65°, but slightly exceeding that value in some parts of England at the commencement of the week, and reaching 73° (at Rothamsted only) on the 10th. Nights very warm at first, but becoming colder as week advanced; slight frosts felt in some parts of England E. and S. on the night 12th-13th.

Rainfall below the mean, excepting in "England S." and "Scotland W."; in the latter district some heavy local falls occurred about the 9th and 10th. In London the rainfall was four tenths of an inch below the mean.

Wind very stormy at the beginning of the week, strong gales from the southward being experienced at most stations on the 8th and 9th, and from W. on the 10th. Wind then lulled, but strong S. to E. breezes, and gales again set in over our western and north-western districts on the 13th, and south-easterly breezes elsewhere.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	64	47	55·4	+8·2	2	0·14	−0·40
	Aberdeen	66	44	54·7	+7·3	3	0·38	−0·35
	Glenalmond	61	40	51·6	+4·0	3	1·02	?
	Leith	66	46	55·9	+8·1	3	0·66	+0·21
2. ENGLAND, N.E.	Shields	64	47	54·9	+5·6	2	0·15	−0·44
	Durham	63	42	53·5	+3·7	3	0·76	+0·09
	Scarborough	63	45	53·9	+4·2	2	0·20	−0·46
	York	65	42	54·6	+4·7	2	0·24	−0·40
	Kelstern (Lincolnshire) ℳ	63	38	52·8	+2·3	2	0·17	−0·61
3. ENGLAND, E.	Yarmouth	64	43	54·8	+3·2	2	0·05	−0·60
	Cambridge	67	35	55·2	+3·7	2	0·19	−0·22
	Audley End (Saffron Walden) ℳ	66	33	54·0	+2·2	2	0·27	?
	Rothamsted	?73	31	53·6	+1·8	5	0·52	−0·16
4. MIDLAND COUNTIES	Nottingham	68	37	54·7	+3·9	3	0·18	−0·45
	Loughborough	67	38	54·5	+3·6	4	0·28	?
	Leicester	64	41	53·5	+2·2	3	0·39	?
	Shrewsbury ℳ	63	37	51·9	+0·5	2	0·70	?
	Hereford ℳ	63	39	53·5	+1·2	3	0·97	+0·22
	Cirencester	64	33	52·3	−0·1	3	1·01	+0·22
	Oxford	65	39	54·3	+2·1	2	0·47	−0·18
5. ENGLAND, S.	London	67	35	54·9	+2·6	2	0·23	−0·41
	Marlborough ℳ	64	33	52·9	+0·2	3	0·98	+0·17
	Strathfield Turgiss ℳ	64	30	52·1	−0·6	3	0·68	+0·03
	Dover	63	44	55·6	+2·6	3	1·34	+0·60
	Hastings	64	43	55·7	+2·5	3	0·78	+0·03
	Hurst Castle	63	42	56·3	+3·0	3	0·38	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	63	48	55·5	+8·0	5	3·58	?
	Glasgow	62	45	54·1	+6·3	4	1·04	+0·08
	Ardrossan	59	50	55·8	+7·6	4	2·66	+1·63
	Silloth	66	47	56·1	+6·6	3	0·39	−0·55
	Douglas (Isle of Man)	61	43	53·2	+3·0	3	0·81	?
7. ENGLAND, N.W.	Stonyhurst	62	41	52·6	+2·3	4	1·02	−0·42
	Manchester	64	42	53·6	+2·9	4	0·88	−0·12
	Liverpool Observatory (Bidston)	62	44	54·5	+3·4	3	0·68	−0·36
	Holyhead	62	48	55·6	+4·3	3	0·86	−0·37
8. ENGLAND, S.W.	Pembroke	61	49	56·2	+3·6	3	0·70	−0·31
	Portishead	64	43	54·9	+2·2	3	0·93	+0·12
	Falmouth	62	46	55·3	+0·8	3	1·17	+0·21
	Plymouth	64	39	55·4	+1·2	3	0·58	−0·33
9. IRELAND, N.	Mullaghmore	63	46	54·8	+5·7	4	1·10	?
	Dunfanaghy	64	49	55·7	+7·2	4	1·11	?
	Greencastle	64	43	53·6	+5·1	4	1·08	−0·07
	Armagh	62	42	53·7	+4·3	4	0·60	−0·21
	Donaghadee	58	42	52·7	+3·4	3	0·91	?
10. IRELAND, S.	Kingstown	61	46	55·3	+4·2	3	0·43	−0·29
	Parsonstown	64	49	57·4	+7·2	3	0·42	−0·40
	Roche's Point	61	42	55·3	+3·6	4	0·62	−0·44
	Valencia	60	43	55·0	+3·6	5	1·50	−0·11
SCOTLAND, N.	Sumburgh Head	57	47	52·5	+6·1	6	0·49	−0·11
	Stornoway	59	47	52·9	+6·3	5	0·61	?
	Thurso	62	49	54·9	+8·2	5	0·25	−0·55
	Wick	59	41	53·9	+7·1	4	0·29	−0·39
——	Scilly (St. Mary's)	62	50	56·3	+1·7	4	0·63	−0·48
	Jersey (Noirmont)	63	49	57·0	+2·4	2	0·25	−0·58

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1. Thes ations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending October 14, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, October 8.

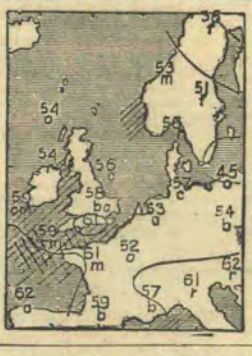
Weather moderately fine at some of our western stations, but overcast or cloudy generally, with rain in the E. and S. of France, at Oxō and Ardrossan. Rain subsequently falling generally, except in the S.E. where weather was very clear in the evening.

Temperature scarcely changed, varying from 61° in the S. to 55° at Greencastle; maxima reaching 68° at Nottingham and 67° in London, and minima not below 50° in any part of these Islands during the night.

Wind southerly over the whole of western Europe, blowing a gale at Scilly, and strongly on most coasts during the day.

Sea high off Ushant and Hurst Castle, rough generally in the W. and S.

Barometer recovering in S.W. falling briskly elsewhere, the depression lying over N. Ireland. Centre subsequently passing slowly north-eastward and recovery in pressure becoming general.



Wednesday, October 9.

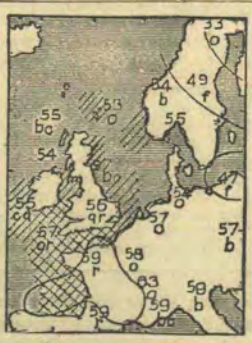
Weather fine in the S.E. and over the S. of France, cloudy or overcast elsewhere with much rain, mist, and fog. Weather dull, wet, and unsettled all day, rain very general.

Temperature rather lower except in the W.; readings very uniform over western Europe; maxima during the day varying between 55° and 66°, minima above 50° everywhere and reaching 57° in the S.

Wind southerly on nearly all coasts, but backing to S.E. in the S.W.; blowing a hard gale at Scilly and strongly, except in the N.; southerly to south-westerly gale subsequently experienced, except in the N.W.; force strongest in the S.W.

Sea rough in the W. and S.

Barometer commencing to fall again in the S.W. but rising in the N. and E. The decrease becoming rapid in the S. of Ireland later in the day, and spreading to all coasts. A fresh and serious depression appearing near Valentia.



Thursday, October 10.

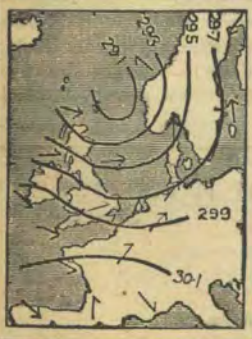
Weather dull, squally, and very unsettled over the whole of western Europe, rain falling in the N.E. and showers in the S. Slight improvement occurring in the E. and S.E. later in the day. Rain amounting to 1·5 ins. at Ardrossan, 0·7 in. at Skudesnaes, and more than 0·5 in. at Leith and Greencastle.

Temperature scarcely changing and very uniform, varying from 61° at Hurst Castle to 53° at Sumburgh Head; the maxima ranging from 54° to 64°.

Wind westerly in the S.W. and the W. of France, south-westerly to southerly elsewhere; strong to a moderate gale generally and reaching the force of a hard gale in the S.W. and the Channel. Gale lasting all day in the W. and S.

Sea very high in the S.W., rough generally.

Barometer recovering quickly in the S.W., falling briskly elsewhere. The new depression advancing north-eastward and lying over the N. of Ireland; the reading at Donaghadee being 28·65 ins. Gradients very steep in the S. and S.E.



Friday, October 11.

Weather very fine over the greater part of these Islands and in the E. of France, but dull in the W. of that country, at some of our western and northern stations, and on the eastern shores of the North Sea. Rain subsequently falling in the extreme N.W. and N. and over Scandinavia.

Temperature higher in Sweden, lower elsewhere; several degrees lower over these Islands. Readings very uniform over western Europe. The maxima reaching 60° at Hurst Castle and Nottingham only.

Wind west-north-westerly on our coasts, westerly in France, and south-westerly to southerly or south-easterly over the Netherlands, Denmark, and Norway; fresh to strong in force generally, but gale dying down.

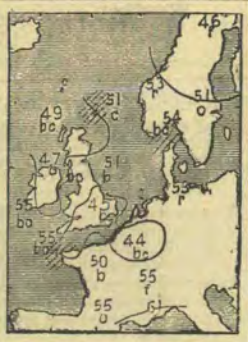
Sea still high in the S.W. and rough in the W. and S. generally.

Barometer falling in Norway and Denmark, rising elsewhere, rapidly on our coasts. Gradients steep in morning but becoming slighter during the day, the depression moving slowly north-eastward.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	



Saturday, October 12.

Weather very fine and bright over these Islands and the greater part of France, cloudy in most other places, with rain in the W. of Norway and at Cuxhaven. No rain falling over England or Ireland, but slight amounts in Scotland.

Temperature lower generally but inclined to rise in the S.W., greatest decrease on our S. coast, the thermometer at Plymouth being as low as 41°, or 5° lower than Haparanda (Lapland).

Wind light and variable over southern England, but southerly in the W. and N.W., westerly to north-westerly in the E., and easterly over France; blowing strongly over the North Sea. Southerly wind in the W. increasing and spreading eastward during the day.

Sea rough off Ushant and the Shetlands.

Barometer at 8 a.m. rising briskly in most places but becoming unsteady in the S.W. Large anticyclone lying over England and France. Decided fall appearing in the W. later in the day, and gradients for southerly winds forming.

Sunday, October 13.

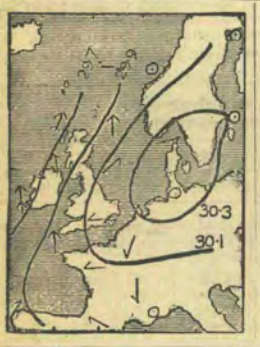
Weather overcast or cloudy in the W. and N., with rain in the Hebrides, Shetlands, and at Christiansund; fine and bright elsewhere. The only rain falling later in the day was a few hundredths in the S. of Ireland.

Temperature much higher in the S.W., W., and N., lower in the E. and S.E., readings varying from 57° in the S.W. and 56° at Ardrossan to 40° in the S.E. The thermometer rising to 63° in London during the day, and falling to 40° in the shade and 30° on the grass during the night.

Wind easterly over France, southerly (S.W. to S.E.) on our coasts, light in force in the E., strong in the W., reaching a gale at Mullaghmore and Stornoway, and at Valentia in the evening.

Sea high at Stornoway, rough at many of our western stations.

Barometer rising over Scandinavia, Denmark, our extreme S.E. coasts, and in some parts of France, falling elsewhere. An anticyclone lying in the S.E., with depressions passing north-eastward over our western stations. Gradients rather steep.



Monday, October 14.

Weather fine and bright, except in the extreme W. and N.; some fog or mist, however, prevailing locally. Half an inch of rain subsequently falling at Valentia, but none measured elsewhere.

Temperature several degrees higher in the S.E., much lower in Scandinavia, unchanged elsewhere; readings varying from 58° in the W. to 46° in London; the maxima ranging between 54° and 64°.

Wind still easterly in France and south-easterly to south-westerly over these Islands; moderate to light in force in the S.E., but strong in the W., and blowing a gale in the W., N.W., and N.; little change occurring during day.

Sea high at Valentia and very high at Stornoway, rough in the W. generally, slight elsewhere.

Barometer rising briskly in Scandinavia, falling in most other places. Anticyclone shown over N. Germany, and depressions still passing northward along our western coasts.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇉ = a heavy gale; ⇢ = a gale; → = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 705.—150.—10/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 37.] WEEK ENDING MONDAY, OCTOBER 21, 1878. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857–69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866–75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	62	36	51	4 above.	2	5	2 less.
	2. ENGLAND, NORTH-EAST	60	42	53	3 above.	4	3	4 less.
	3. ENGLAND, EAST	63	39	53	1 above.	3	7	1 more.
	4. MIDLAND COUNTIES	61	36	51	0 (average).	4	8	3 more.
	5. ENGLAND, SOUTH	66	34	54	1 above.	2	5	2 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	64	40	53	5 above.	3	16	4 more.
	7. ENGLAND, NORTH-WEST	60	43	52	1 above.	4	7	5 less.
	8. ENGLAND, SOUTH-WEST	64	40	54	1 below.	4	5	4 less.
	9. IRELAND, NORTH	62	40	54	5 above.	3	10	2 less.
	10. IRELAND, SOUTH	65	40	55	4 above.	4	8	3 less.

General Remarks.

Weather generally cloudy and unsettled, but very little rain during the early part of the week. A good deal of fog and mist over England on the 16th and 17th. Temperature high for the season in Scotland, Ireland, and the north-east of England, but differing little from the mean in other districts, the day readings being below 65° except on one or two occasions in the south of Ireland and England. No frosts reported, but the thermometer as low as 34° in Hampshire (Strathfield Turgiss) on the 15th.

Rainfall above the mean in eastern and central England as well as in the west of Scotland, but a little below elsewhere. By far the greater portion of the rain fell in the latter part of the week.

Wind generally south-easterly or southerly, and moderate in force until Monday the 21st, when it veered to S.W. or W. and blew strongly generally with gales in the south-west and south.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	59	44	51·8	+4·6	4	0·28	−0·26
	Aberdeen	58	45	53·0	+5·6	2	0·41	−0·32
	Glenalmond	56	36	48·4	+0·8	2	1·08	?
	Leith	62	42	51·5	+3·7	1	0·33	−0·12
2. ENGLAND, N.E.	Shields	58	45	52·8	+3·5	4	0·06	−0·53
	Durham	59	43	51·6	+1·8	4	0·34	−0·33
	Scarborough	57	49	53·6	+3·9	4	0·42	−0·24
	York	60	42	52·5	+2·6	4	0·48	−0·16
	Kelstern (Lincolnshire) ℞	59	46	52·2	+1·7	3	0·30	−0·48
3. ENGLAND, E.	Yarmouth	60	50	54·3	+2·7	2	0·60	−0·05
	Cambridge	63	39	52·2	+0·7	2	0·32	−0·09
	Audley End (Saffron Walden) ℞	62	42	52·0	+0·2	2	0·70	?
	Rothamsted	61	43	52·7	+0·9	6	1·17	+0·49
4. MIDLAND COUNTIES	Nottingham	61	39	52·7	+1·9	5	0·53	−0·10
	Loughborough	59	36	51·1	+0·2	4	0·51	?
	Leicester	58	42	51·9	+0·6	4	0·46	?
	Shrewsbury ℞	58	40	50·3	−1·1	4	1·01	?
	Hereford ℞	59	38	50·9	−1·4	5	0·77	+0·02
	Cirencester	61	40	51·3	−1·1	3	1·38	+0·59
	Oxford	60	41	51·0	−1·2	3	1·25	+0·60
5. ENGLAND, S.	London	66	43	54·0	+1·7	1	0·23	−0·41
	Marlborough ℞	61	37	52·1	−0·6	3	0·84	+0·03
	Strathfield Turgiss ℞	64	34	52·4	−0·3	2	1·03	+0·33
	Dover	60	52	55·5	+2·5	1	0·19	−0·55
	Hastings	60	46	53·7	+0·5	2	0·21	−0·54
	Hurst Castle	64	44	54·0	+0·7	2	0·50	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	60	46	53·7	+6·2	3	2·13	?
	Glasgow	60	44	52·1	+4·3	3	1·19	+0·23
	Ardrossan	61	49	54·2	+6·0	3	1·49	+0·46
	Silloth	64	40	52·6	+3·1	3	1·42	+0·48
	Douglas (Isle of Man)	60	46	53·6	+3·4	3	1·63	?
7. ENGLAND, N.W.	Stonyhurst	58	44	51·0	+0·7	4	0·83	−0·61
	Manchester	60	44	52·0	+1·3	4	0·55	−0·45
	Liverpool Observatory (Bidston)	58	43	51·5	+0·4	3	0·38	−0·66
	Holyhead	60	46	53·6	+2·3	3	0·94	−0·29
8. ENGLAND, S.W.	Pembroke	60	44	54·5	+1·9	5	0·37	−0·64
	Portishead	60	40	51·5	−1·2	2	0·56	−0·25
	Falmouth	60	47	55·9	+1·4	4	0·63	−0·33
	Plymouth	64	45	54·4	+0·2	3	0·43	−0·48
9. IRELAND, N.	Mullaghmore	61	45	53·6	+4·5	4	1·42	?
	Dunfanaghy	60	42	53·4	+4·9	4	1·43	?
	Greencastle	62	43	53·7	+5·2	3	0·75	−0·40
	Armagh	59	40	53·0	+3·6	3	0·86	+0·05
	Donaghadee	58	49	53·6	+4·3	3	0·68	?
10. IRELAND, S.	Kingstown	60	52	55·2	+4·1	3	0·29	−0·43
	Parsonstown	62	40	53·2	+3·0	4	0·98	+0·16
	Roche's Point	61	48	55·9	+4·2	5	0·51	−0·55
	Valencia	65	44	55·3	+3·9	5	1·23	−0·38
SCOTLAND, N.	Sumburgh Head	57	49	52·4	+6·0	2	1·19	+0·59
	Stornoway	57	41	51·7	+5·1	2	0·70	?
	Thurso	63	46	52·4	+5·7	4	0·62	−0·18
	Wick	59	49	53·3	+6·5	3	0·29	−0·39
——	Scilly (St. Mary's)	61	52	56·8	+2·2	7	0·56	−0·55
	Jersey (Noirmont)	66	47	56·6	+2·0	1	0·39	−0·44

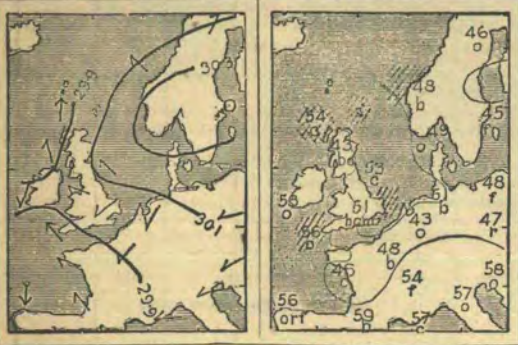
The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "℞" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending October 21, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.



Weather during the 24 hours succeeding the date of the Charts.

Tuesday, October 15.

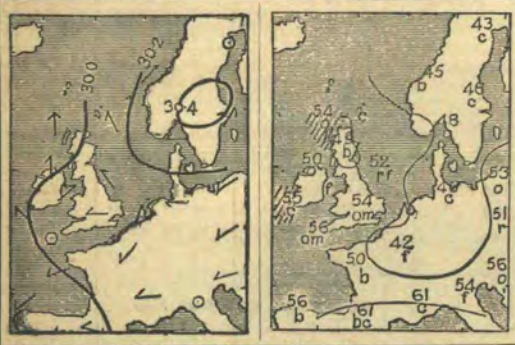
Weather very dry and moderately fair generally, though cloudy and foggy in several places; slight rain subsequently falling in the N.E. and at some of our south-western stations.

Temperature higher in the E., lower in the S.W., W., and N. of our Islands; not much change over the greater part of the continent. Readings in these Islands varying from 57° at Cork to 43° at Portishead.

Wind easterly over France and the S. of England, but drawing into S.E. and S. in the N.W. and N., blowing strongly in places and reaching a gale at Stornoway. Later in the day wind falling lighter, but retaining the same general direction.

Sea rough or high in the N., rather rough off Scilly and Yarmouth.

Barometer falling over France, the Netherlands, and S. of England, rising elsewhere. Large anticyclone lying over Denmark and the S. of Scandinavia, the lowest readings being shown over the Gulf of Gascony. In the evening mercury rising slowly.



Wednesday, October 16.

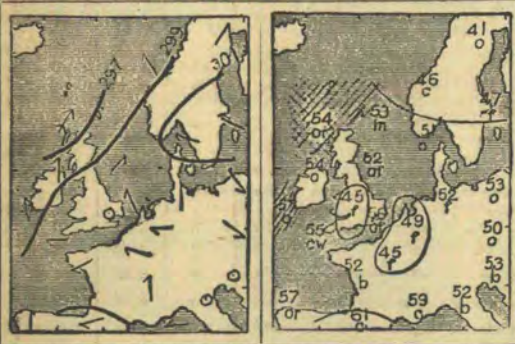
Weather very fine in the W. and S. of France, dull or cloudy over these Islands, with much fog and mist. Slight rain subsequently falling on our north-eastern and south-western coasts.

Temperature higher in most places; readings very uniform over western Europe. The maxima ranging between 61° and 54°.

Wind easterly over N. Germany, France, and the greater part of England, but drawing into S.E. and S. in the N. Light in force generally in the morning, but the southerly wind increasing during the day.

Sea moderate to smooth, except at Stornoway.

Barometer falling over Scandinavia and our northern and western stations, rising elsewhere. Pressure greatest over Sweden, lowest off our W. coasts. Decrease in the N.W., becoming brisker towards evening, and the gradients over Scotland increasing.



Thursday, October 17.

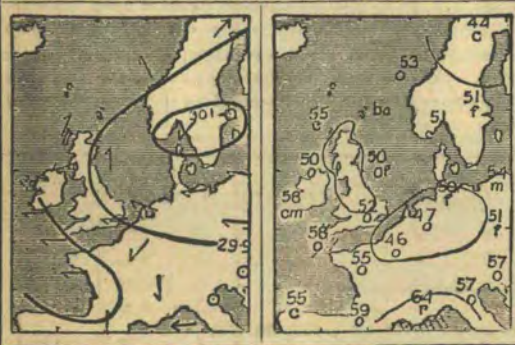
Weather still very fine in the W. of France, dull and cloudy elsewhere; very foggy over England, but exceptionally dry over the whole of western Europe.

Temperature higher over France, the eastern shores of the North Sea, and our western and northern coasts, lower over England. Readings, however, still very uniform generally, and the maxima ranging from 54° to 64°.

Wind still easterly over France, but southerly breezes more general over these islands; light in force in the E., moderate in the W., and blowing a fresh gale at Stornoway. Force decreasing later in the day, but direction unchanged.

Sea high off the Hebrides, rough at Sumburgh Head and Valentia.

Barometer falling over the whole of our area, change being least in the S.E. and greatest in the N.W. Anticyclone still lying over Sweden, with depression passing north-eastward off the W. coast of Scotland.



Friday, October 18.

Weather fine in many parts of Scotland, Ireland, and France, still dull and foggy over England. No rain falling except a few hundredths in the S.W.

Temperature lower at our more northern stations, higher elsewhere. Readings rather low at the inland stations, but very uniform round the coast; the maxima reaching 65° at Valentia, and 63° at Thurso.

Wind easterly over N. Germany, France, and our southern stations, south-easterly to southerly in the North. Light or moderate in force generally, but strong in the Channel.

Sea rough off the Scilly Isles.

Barometer rising slightly over Scotland and Norway, falling elsewhere. Readings highest over the S. of Scandinavia, lowest over the Bay of Biscay. Decrease continuing all day, and small depression appearing over western France.

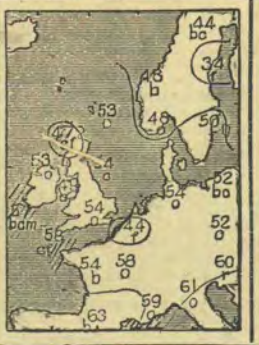
(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Saturday, October 19.

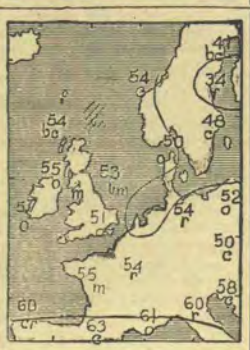
Weather fine in the W. of France, dull or very cloudy in nearly all other places, with fog and mist in the S.W.; rain at Cork and Plymouth. Rain subsequently falling at most of the western stations.

Temperature rather higher except in the N.W. of Scotland and W. of Ireland. Readings varying from 58° in the S.W. to 44° at Nairn. The maxima ranging in most places from 55° to 60°.

Wind light westerly in Brittany, moderate easterly over the North Sea, the Netherlands, and S.E. of England, and moderate to fresh south-easterly elsewhere. Direction becoming more southerly later in the day.

Sea moderate to slight, except in the S.W.

Barometer rising slightly both in France and Sweden; falling elsewhere. Readings highest over the S. of Sweden, lowest to the westward of Ireland, but small subsidiary depressions shown in the neighbourhood of the Channel.



Sunday, October 20.

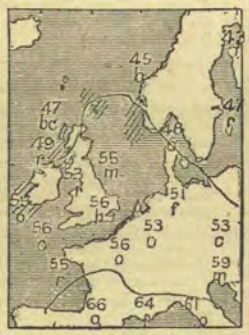
Weather locally fine at Shields and Stornoway; very cloudy and dull in almost all other places. Rain prevailing at Cork, Nottingham, Ardrossan, and Paris; fog at several stations. Rain subsequently falling except in the neighbourhood of the Channel.

Temperature a little lower over the greater part of the Continent; a little higher over these Islands. Very uniform, between 50° and 60°, over the British Isles and France.

Wind moderate from S.W. to S.E. in the W. and N., light from E. to S.E. over France and our eastern stations. Southerly breeze becoming more general in the evening.

Sea rough near the Shetlands.

Barometer rising in S. and falling in N. at 8 a.m., but decrease in N. becoming general during day, and a depression advancing over the W. of Scotland.



Monday, October 21.

Weather fine over the S.E. of England, dull, cloudy, and unsettled elsewhere, with much rain in the W. and N.W., fog in some places. Rain occurring generally during the day, the amounts being large in the W. and N.

Temperature scarcely changing, readings still varying between 50° and 60° over these Islands and France. During the following night the thermometer much lower, falling to 38° in the N.E. of Ireland and Scotland and 45° over Central England.

Wind southerly (S.W. to S.E.) over the whole country, moderate to fresh generally and strong at Valentia and the Shetlands, and reaching a gale in the S.W. in the evening.

Sea rough in the W. and off Skudesnaes.

Barometer falling everywhere rapidly in the N.W. Large depression appearing off the W. coast of Scotland at 8a.m., and subsequently passing slowly eastward over the country.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛⟶ = a heavy gale; ➪⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

(Signed) ROBERT H. SCOTT,
Secretary.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 705.—150.—10/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 38.] WEEK ENDING MONDAY, OCTOBER 28, 1878. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Portishead, Falmouth, Plymouth.
9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	56	33	43	1 below.	5	7	1 less.
	2. ENGLAND, NORTH-EAST	54	32	44	2 below.	6	8	1 more.
	3. ENGLAND, EAST	59	32	46	1 below.	6	9	4 more.
	4. MIDLAND COUNTIES	57	30	45	2 below.	7	11	5 more.
	5. ENGLAND, SOUTH	63	32	48	0 (average).	6	12	5 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	56	33	46	0 (average).	5	19	8 more.
	7. ENGLAND, NORTH-WEST	56	31	46	1 below.	6	12	2 more.
	8. ENGLAND, SOUTH-WEST	58	38	49	0 (average).	7	19	10 more.
	9. IRELAND, NORTH	54	36	45	1 below.	7	15	6 more.
	10. IRELAND, SOUTH	56	34	47	1 below.	5	7	2 less.

General Remarks.

Weather cold, wet, and unsettled generally, with showers of hail in some places and snow in the N. of Scotland. Temperature slightly below the mean in most districts; sharp frosts were experienced in the northern, eastern, and central parts of England and Scotland towards the close of the week.

Rainfall above the mean except in "Scotland, E." and "Ireland, S.," some fall occurring in most districts on each day of the week.

Wind varying in direction between N.W. and S.W.; fresh to strong in force on most days, and rising to a gale on several occasions, notably on Thursday and Saturday in the south and south-east of England.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	51	36	43·4	−0·6	7	0·70	+0·17
	Aberdeen	54	33	43·3	−1·2	4	0·49	−0·21
	Glenalmond	51	33	40·7	−3·4	3	1·24	?
	Leith	56	37	44·7	+0·4	4	0·26	−0·21
2. ENGLAND, N.E.	Shields	52	33	44·3	−1·4	5	0·44	−0·19
	Durham	53	32	43·6	−2·8	6	0·15	−0·53
	Scarborough	52	38	45·1	−1·0	7	1·33	+0·61
	York	54	34	44·7	−1·5	4	0·45	−0·14
	Kelstern (Lincolnshire) ℳ	53	34	43·4	−3·1	6	1·43	+0·79
3. ENGLAND, E.	Yarmouth	57	34	46·0	−1·5	6	0·98	+0·29
	Cambridge	59	32	47·5	+0·2	5	1·01	+0·57
	Audley End (Saffron Walden) ℳ	58	32	46·5	−1·1	6	0·64	?
	Rothamsted	58	34	45·5	−2·0	7	0·76	+0·18
4. MIDLAND COUNTIES	Nottingham	57	33	44·2	−2·4	7	1·53	+0·97
	Loughborough	56	30	45·4	−1·4	6	1·08	?
	Leicester	55	31	45·0	−2·0	7	0·95	?
	Shrewsbury ℳ	56	33	44·3	−2·9	7	1·17	?
	Hereford ℳ	56	37	46·4	−1·6	7	1·23	+0·54
	Cirencester	55	33	46·0	−1·9	6	1·00	+0·30
	Oxford	57	34	46·7	−0·9	6	0·82	+0·27
5. ENGLAND, S.	London	59	36	48·4	+0·4	6	0·61	+0·07
	Marlborough ℳ	57	34	46·6	−1·6	6	1·19	+0·48
	Strathfield Turgiss ℳ	58	33	47·0	−1·3	5	0·78	+0·22
	Dover	63	32	49·0	+0·4	5	1·44	+0·61
	Hastings	60	37	48·3	−0·5	6	1·86	+1·16
	Hurst Castle	59	40	50·6	+2·6	5	1·04	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	52	36	44·3	−1·6	7	3·28	?
	Glasgow	56	39	47·3	+2·4	5	1·52	+0·61
	Ardrossan	54	41	46·9	+1·6	6	2·72	+1·74
	Silloth	56	35	46·3	−0·2	5	0·74	−0·06
	Douglas (Isle of Man)	54	33	46·0	−1·0	4	1·23	?
7. ENGLAND, N.W.	Stonyhurst	52	37	44·6	−2·0	6	2·30	+1·01
	Manchester	56	31	44·4	−2·3	5	1·36	+0·45
	Liverpool Observatory (Bidston)	53	40	47·1	−0·1	6	0·69	−0·13
	Holyhead	54	44	49·2	+1·2	7	0·51	−0·47
8. ENGLAND, S.W.	Pembroke	56	43	49·2	0·0	6	1·82	+0·86
	Portishead	57	38	48·5	+0·2	6	2·42	+1·70
	Falmouth	57	44	49·8	−1·3	7	2·52	+1·43
	Plymouth	58	40	49·9	−0·5	7	0·73	−0·11
9. IRELAND, N.	Mullaghmore	51	41	46·6	+0·4	7	1·70	?
	Dunfanaghy	51	40	46·2	+0·4	7	2·31	?
	Greencastle	54	39	45·4	−0·3	7	2·39	+1·28
	Armagh	51	36	44·1	−2·3	7	0·53	−0·17
	Donaghadee	52	38	44·0	−2·3	6	0·47	?
10. IRELAND, S.	Kingstown	52	41	46·6	−0·9	2	0·04	−0·59
	Parsonstown	56	34	44·9	−2·1	7	0·40	−0·30
	Roche's Point	54	42	48·2	0·0	5	0·61	−0·48
	Valencia	55	43	48·9	+0·8	7	1·77	+0·40
SCOTLAND, N.	Sumburgh Head	53	37	45·6	+1·7	6	1·10	+0·50
	Stornoway	49	36	43·2	−1·0	7	2·61	?
	Thurso	54	35	44·4	+0·3	6	1·62	+0·78
	Wick	55	32	43·8	−0·4	5	0·52	−0·21
———	Scilly (St. Mary's)	57	47	51·6	+0·1	7	2·94	+1·89
	Jersey (Noirmont)	61	46	51·7	+0·4	7	2·39	+1·62

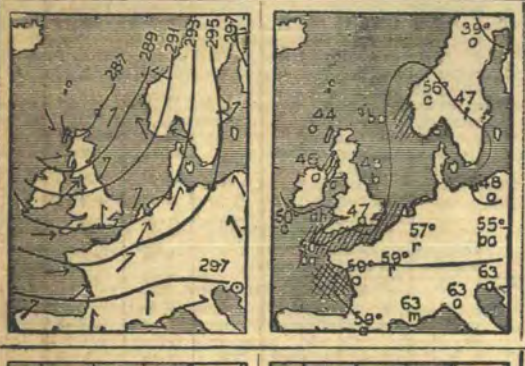
The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending October 28, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, October 22.

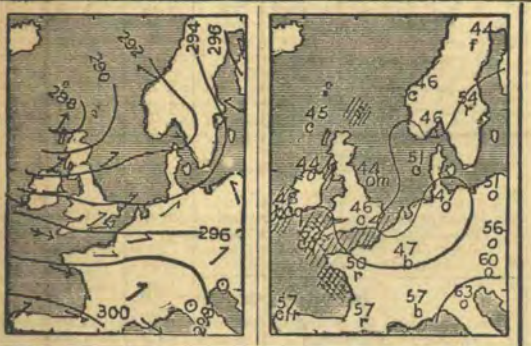
Weather clear in the E. of Scotland and the N.E. and central parts of England, but overcast and unsettled elsewhere, with rain in many places, particularly over France, and hail at Pembroke Rain falling during the day except in the N.E., but at 6 p.m. the weather improving.

Temperature rather higher to the eastward of the North Sea than on the 21st, but several degrees lower over these Islands and the N. of France, the maxima not reaching 60° at any of our stations, and rising a little above 50° in the N.E. and N.

Wind northerly in the Hebrides, west-north-westerly to westerly in parts of our Islands and France; south-westerly to southerly elsewhere. Fresh to strong on our coasts, and blowing a gale from S.S.E. in Norway. Strong west-north-westerly gale felt on our S.W. coasts in the evening.

Sea rough in the W., S., and N.E.

Barometer falling over the whole of western Europe—briskly on our northern coasts, and rapidly in Norway. A deep depression lying to the northward of Scotland, subsequently moving north-eastward, and the mercury rising.



Wednesday, October 23.

Weather fine in the eastern parts of Ireland and Great Britain, with the N.E. of France; cloudy and overcast elsewhere, with rain at Ardrossan, the Scaw, and in Sweden. Heavy rain falling in the N. and W. during the day, and smaller quantities elsewhere.

Temperature risen in the N., fallen in the S. and W., and readings very uniform over western Europe. The maxima about 55° in the S., and 50° or slightly below in the N.

Wind westerly on our western coasts and over France, south-westerly to south-easterly over the North Sea and Scandinavia. Fresh to strong in force, and blowing a gale at Scilly all day.

Sea high in the S.W., rough in the W., S., and N.E.

Barometer rising at 8 a.m. except at Stornoway, but the decrease there spreading to the other Scotch stations by 6 p.m., and a separate fall appearing at Valentia at the same hour. Readings highest over Spain and the S. of France, lowest off the Hebrides.

Thursday, October 24.

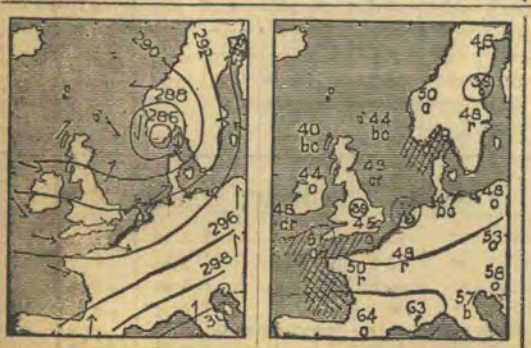
Weather at 8 a.m. fine in Sweden, fair in Scotland, overcast or very cloudy in most other places, with rain over south-eastern and central England, at Cape Gris Nez and Oxö, hail at Fanö. Rain collected at nearly all stations during the day but weather clearing considerably at night.

Temperature rising in S.E., E., and N.E., falling elsewhere; readings very uniform. In the evening the thermometer falling quickly in the S.E., cold night.

Wind light to moderate from W. to S.W. in the N., varying between W. and S. at our southern stations and over the Channel, but blowing a moderate to strong gale. The gale very severe at Walmer. Wind generally westerly at 6 p.m. and force moderating.

Sea high to rough in the S.W., S., and N.E.

Barometer rising in the N. but falling fast in the S., and a small subsidiary passing over southern England. Readings highest over France and lowest near the Hebrides. Small depression disappearing over the North Sea at 6 p.m.



Friday, October 25.

Weather in the morning moderately fine over the greater part of these Islands, but cloudy and showery in the W. Rain falling in the N. of France and the Netherlands. Rain subsequently falling generally, heavily in the Channel.

Temperature lower at our eastern stations and in the N. of France than on the 24th, higher in the S. of France. Readings varying from 51° at Scilly, to 39° at Nottingham and 37° at Wick. Maxima not reaching 60° at any of our stations, minima in night as low as 33° at Aberdeen and 35° at Wick.

Wind fresh to strong, westerly to north-westerly on our coasts and over France, with a strong southerly gale in the S. of Scandinavia. Strong W.N.W. gale at Scilly, at 6 p.m.

Sea rough in the S.W. and S., high in the Skager Rack.

Barometer falling rapidly in the S. of Norway, briskly generally, deep depression near Oxö. Pressure increasing in the E. in the evening, but falling quickly at Valentia.

(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, October 26.

Weather fine in the N. of Scotland and S. of France, dull and unsettled in most other districts, with rain in the S.E., fog and mist in the N.E. Rain subsequently occurring generally.

Temperature risen in the N. of France, and at our southern and south-eastern stations, fallen elsewhere; varying from 53° at Dover to 39° at York and 35° at Aberdeen; thermometer falling in following night to 30° at Nottingham, and about 32° in the E. of England.

Wind northerly to north-westerly in the W., westerly to south-westerly in the south, light and variable in the N., blowing a gale in the Channel. Very heavy gale occurring round the N. and S. Forelands at about 1 p.m., but wind falling light in evening.

Sea high or rough in the S. and S.W.

Barometer rising briskly in the N. and recovering slightly in the W., but falling in the S. and S.E. A large depression lying over these islands with its minimum near Portishead. Disturbance passing eastward later in the day, and rise of barometer becoming general.

Sunday, October 27.

Weather fine in most parts of our Islands, but slight showers prevailing in the extreme W. and S.W. On the Continent sky cloudy, with rain. Some rain falling, except in the S.E. of England during the day.

Temperature very considerably lower in the S.E., but higher elsewhere, as much as 10° in the N.E. The minima in the succeeding night as low as 32° at Wick, 33° at Nottingham and Cambridge, and 36° in London.

Wind northerly on our coasts, westerly over France, and southerly to south-easterly to the eastward of the North Sea; fresh to strong in force in the W., light in the E. Becoming fresh to moderate, north-westerly on all our coasts in the evening.

Sea rough in the S.W., in the Bay of Biscay, and to the northward of Scotland.

Barometer falling over Denmark and the S. of France, rising briskly over these Islands and their neighbourhood. A depression lying over the Skager Rack, and a small subsidiary disturbance over the Channel. Pressure decreasing again at Stornoway at 6 p.m.

Monday, October 28.

Weather fair in the S. and E., but overcast in the N., with hail showers at Stornoway. Rain and hail showers occurring during the day, and thunderstorms in the S.W. in the evening.

Temperature higher in the S.W., but lower in the N. and N.E. and over the E. and S. of France. Readings varying from 52° at Scilly to 34° at Wick. The minima again as low as 32° in the N. of Scotland.

Wind westerly to north-westerly on nearly all coasts, fresh to strong, except in the E., and blowing a gale at Mullaghmore. Tremendous squalls passing over the Hebrides during the morning.

Sea rough in the W. and S.

Barometer rising briskly in the S. and over France, falling in the N. A depression lying between the Shetlands and the coast of Norway. In the evening barometer recovering in the N. and falling in the S.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇉ = a heavy gale; ⇢ = a gale; → = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 705.—150.—10/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 39.] WEEK ENDING MONDAY, NOVEMBER 4, 1878. [*Price 2d.* [*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Falmouth, Plymouth.
9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857–69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866–75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	52	31	40	4 below.	4	6	1 more.
	2. ENGLAND, NORTH-EAST	50	27	40	6 below.	6	9	3 more.
	3. ENGLAND, EAST	52	29	40	8 below.	6	5	0 (average).
	4. MIDLAND COUNTIES	50	27	40	8 below.	4	4	3 less.
	5. ENGLAND, SOUTH	49	28	40	8 below.	3	3	4 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	50	27	41	5 below.	2	2	9 less.
	7. ENGLAND, NORTH-WEST	51	30	42	5 below.	5	5	5 less.
	8. ENGLAND, SOUTH-WEST	51	33	44	6 below.	6	10	0 (average).
	9. IRELAND, NORTH	50	31	43	3 below.	6	9	1 more.
	10. IRELAND, SOUTH	54	29	42	5 below.	4	2	8 less.

General Remarks.

Weather fair on the whole, but slight showers of cold rain, hail, and sleet reported, most frequently in the north-east. Thunder and lightning observed in some places on the 29th and 30th. Temperature below the mean in all districts, the deficit amounting to eight degrees over the greater part of England, but only to three degrees in "Ireland, North." The maxima seldom above 50°; sharp frosts observed on several nights. The thermometer on the grass as low as 20° at Shrewsbury on the morning of October 30th, and also in London on the morning of November 4th.

Rainfall rather irregularly distributed, owing to the prevalence of local showers. The total for the week generally less than the mean, but a little above it in the north-eastern districts and north of Ireland.

Wind northerly to north-westerly, blowing a fresh to strong gale in the western and northern districts on the 29th and 30th, but afterwards moderating generally.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	45	33	39·9	−4·1	6	0·77	+0·24
	Aberdeen	47	33	40·5	−4·0	7	0·92	+0·22
	Glenalmond	46	31	39·2	−4·9	2	0·33	?
	Leith	52	34	41·7	−2·6	2	0·31	−0·16
2. ENGLAND, N.E.	Shields	47	31	40·5	−5·2	7	1·40	+0·77
	Durham	46	29	38·9	−7·5	6	1·04	+0·36
	Scarborough	49	32	42·2	−3·9	6	1·32	+0·60
	York	50	29	39·6	−6·6	5	0·31	−0·28
	Kelstern (Lincolnshire) ℳ	48	27	38·6	−7·9	7	0·60	−0·04
3. ENGLAND, E.	Yarmouth	49	29	39·7	−7·8	7	0·95	+0·26
	Cambridge	52	30	40·3	−7·0	5	0·53	+0·09
	Audley End (Saffron Walden) ℳ	49	32	39·6	−8·0	5	0·34	?
	Rothamsted	48	30	39·3	−8·2	7	0·26	−0·32
4. MIDLAND COUNTIES	Nottingham	50	27	39·9	−6·7	4	0·35	−0·21
	Loughborough	50	31	39·8	−7·0	4	0·30	?
	Leicester	49	31	39·7	−7·3	4	0·39	?
	Shrewsbury ℳ	46	27	37·8	−9·4	5	0·42	?
	Hereford ℳ	49	30	40·1	−7·9	5	0·43	−0·26
	Cirencester	48	30	39·9	−8·0	3	0·40	−0·30
	Oxford	48	32	39·7	−7·9	3	0·27	−0·28
5. ENGLAND, S.	London	48	29	39·5	−8·5	4	0·13	−0·41
	Marlborough ℳ	48	30	39·2	−9·0	3	0·36	−0·35
	Strathfield Turgiss ℳ	48	28	39·5	−8·8	2	0·20	−0·36
	Dover	48	32	40·5	−8·1	3	0·65	−0·18
	Hastings	48	30	40·2	−8·6	2	0·10	−0·60
	Hurst Castle	49	32	42·4	−5·6	3	0·04	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	47	30	39·6	−6·3	2	0·29	?
	Glasgow	47	33	42·7	−2·2	1	0·02	−0·89
	Ardrossan	50	32	42·2	−3·1	1	0·01	−0·97
	Silloth	50	27	39·5	−7·0	0	—	−0·80
	Douglas (Isle of Man)	49	31	40·8	−6·2	5	0·52	?
7. ENGLAND, N.W.	Stonyhurst	47	33	40·0	−6·6	3	0·11	−1·18
	Manchester	49	30	38·9	−7·8	4	0·24	−0·67
	Liverpool Observatory (Bidston)	48	36	42·7	−4·5	4	0·27	−0·55
	Holyhead	51	38	45·8	−2·2	7	1·49	+0·51
8. ENGLAND, S.W.	Pembroke	49	38	44·4	−4·8	6	0·88	−0·08
	Falmouth	50	37	44·8	−6·3	6	1·62	+0·53
	Plymouth	51	33	42·3	−8·1	5	0·48	−0·36
9. IRELAND, N.	Mullaghmore	49	35	44·0	−2·2	6	0·76	?
	Dunfanaghy	49	36	43·2	−2·6	7	0·86	?
	Greencastle	50	35	43·5	−2·2	7	1·65	+0·54
	Armagh	48	31	39·8	−6·6	6	0·28	−0·42
	Donaghadee	48	38	43·6	−2·7	6	0·85	?
10. IRELAND, S.	Kingstown	48	35	42·0	−5·5	5	0·09	−0·54
	Parsonstown	50	29	39·7	−7·3	3	0·16	−0·54
	Roche's Point	51	37	43·7	−4·5	1	0·03	−1·06
	Valencia	54	33	44·2	−3·9	6	0·43	−0·94
SCOTLAND, N.	Sumburgh Head	45	32	39·3	−4·6	7	1·60	+1·00
	Stornoway	45	30	38·5	−5·7	6	0·57	?
	Thurso	47	34	42·2	−1·9	7	1·48	+0·64
	Wick	46	32	40·1	−4·1	7	0·87	+0·14
——	Scilly (St. Mary's)	52	43	47·7	−3·8	7	0·71	−0·34
	Jersey (Noirmont)	51	38	45·1	−6·2	7	1·91	+1·14

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending November 4, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, October 29.

Weather moderately fine in the E., but dull in the W. with showers of rain; snow in Caithness. Showers of snow, hail, and rain occurring very generally during the day.

Temperature fallen everywhere, varying over these Isles from 50° at Scilly to 33° in the N.E. The maxima below 50° except at Valentia, the minima in following night about freezing point in the eastern and central parts.

Wind northerly to north-westerly, strong in force and increasing to a fresh gale at Scilly by the evening.

Sea rough on most of our coasts, high in the Minch.

Barometer rising over the greater part of the Kingdom and falling over the North Sea, but fresh decrease appearing in the extreme W., and subsequently being felt at most stations.

Wednesday, October 30.

Weather cloudy or dull except in the S.W., with cold rain in several places, hail at Holyhead and Jersey, snow in the S. of England. Showers again occurring generally.

Temperature risen N., fallen S.; readings very uniform over western Europe, though lower over the E. of England and N.E. of France than elsewhere. The minima in following night 31° in the S.E.

Wind northerly on our northern coasts, N.W. to W. in the S., strong in force except in the E., and blowing a gale all day in the S.W., W., and N.

Sea high to rough except in the E.

Barometer rising in the W., falling in the E at 8 A.M., later in the day rise becoming general, brisk in the N.W. Large depression lying over the North Sea, readings highest in W.

Thursday, October 31.

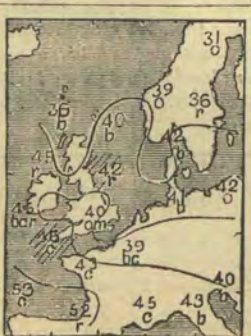
Weather very fine at most of our coast stations, but cloudy and wet over central England, and dull over France; snow falling at Stornoway. Showers again frequent later.

Temperature lower in Scotland, and higher over France than on 30th, change irregular elsewhere. Readings still uniform. Minima in following night as low as 32° at York and 31° at Cambridge.

Wind northerly at most of our ports, but north-westerly over the Bay of Biscay and France; strong in force at many of our northern and western stations. Very little change occurring during the day.

Sea high off the Hebrides; rough in the N.W., N.E., and S.W.

Barometer falling at Scilly and in the W. of France; rising elsewhere. Readings continuing highest to the westward of Ireland, lowest over the North Sea. Pressure scarcely changing in the evening.



Friday, November 1.

Weather varying considerably; very fine over Denmark and at many of our eastern, central, and north-western stations; more or less cloudy elsewhere, with rain in several places. Rain subsequently falling in most places, and thunderstorms occurring at Jersey and Cape Gris Nez in the following night.

Temperature higher in the N.E., and lower, in the S.W., than on the 31st; readings again uniform. Thermometer low in the S.E. at night.

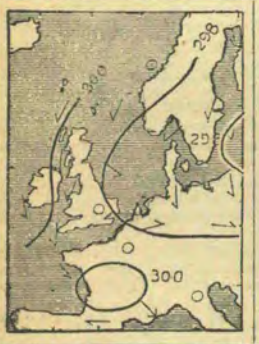
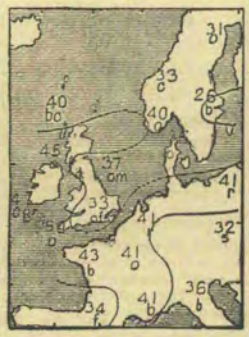
Wind northerly generally, but drawing into S.W. in Belgium; moderate to fresh in force, except at Scilly, where it blew a moderate gale in the afternoon and evening.

Sea rough at Scilly and Shields.

Barometer falling briskly in Sweden, slightly over France; rising elsewhere. Readings highest to the westward of our Islands and lowest over the Baltic. Several small depressions shown in the S.E.

(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, November 2. *Weather* fine at all our stations except at Shields and Yarmouth, where rain falls; snow and rain falling in Scandinavia. Some fog prevailing in places. Weather fair all day. *Temperature* changing irregularly in the N., rather lower in the S.E., and several degrees lower over France. Thermometer falling in the following night to 29° in London, and to 31° at Nottingham. *Wind* northerly on our own and the French coasts, and over Norway and Sweden, but south-westerly at Brussels; moderate to fresh in force generally, but blowing a gale at Wisby. *Sea* moderate to smooth except in the N.E. and S.W. *Barometer* falling in the N. of Sweden and S.E. of France, rising in all other places. Readings still highest to the westward of Ireland, while the depression in the Baltic is moving northward.
		Sunday, November 3. *Weather* moderately fair except in the N. of Scotland and W. of Norway; snow and hail falling at Christiansund; fog prevailing in the Netherlands. Some rain falling in the N. and W. during the day. *Temperature* rather higher than on 2nd, readings very uniform. The minimum over the British Isles in the following night 31° at Nottingham and in London. *Wind* still northerly on most coasts, light or moderate in force except at C. Gris Nez where it is fresh, and Christiansund where a gale is blowing. *Sea* moderate to slight except off Christiansund and Toulon. *Barometer* rising over France, falling over these Islands and to the eastward of the North Sea. Pressure highest off the W. of Ireland, lowest over the Baltic, but gradients not steep.
		**Monday, November 4.** *Weather* rather cloudy except at some of our inland stations, at Lorient and Cuxhaven; rain falling at Scarboro' and Holyhead and a good deal of fog and mist prevailing. Some rain subsequently falling in most districts. *Temperature* fallen slightly on the eastern shores of the North Sea and several degrees at Biarritz, risen somewhat elsewhere. Minima over Central England in night 33°. *Wind* continuing northerly and moderate in force except at Scilly. Wind rising later in the day and reaching a fresh north-easterly gale on the E. coast at night. *Sea* moderate to smooth. *Barometer* rising over the Gulf of Bothnia and at Toulon, falling briskly over these Islands. Decrease lasting all day in the S., but a recovery commencing in the N. in the evening.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇉ = a heavy gale; ⇒ = a gale; → = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 705.—150.—11/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 40.] WEEK ENDING MONDAY, NOVEMBER 11, 1878. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Falmouth, Plymouth.
9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	49	29	38	3 below.	6	9	3 more.
	2. ENGLAND, NORTH-EAST	49	27	39	3 below.	6	15	9 more.
	3. ENGLAND, EAST	51	29	40	3 below.	7	19	15 more.
	4. MIDLAND COUNTIES	54	30	40	3 below.	6	12	5 more.
	5. ENGLAND, SOUTH	52	30	41	3 below.	5	12	7 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	51	28	40	3 below.	4	14	1 more.
	7. ENGLAND, NORTH-WEST	52	29	42	2 below.	5	18	10 more.
	8. ENGLAND, SOUTH-WEST	54	34	44	2 below.	7	17	11 more.
	9. IRELAND, NORTH	51	31	42	1 below.	6	16	4 more.
	10. IRELAND, SOUTH	54	26	42	2 below.	5	13	5 more.

General Remarks.

Weather very changeable, clear bright skies alternating with heavy clouds, and showers of rain, hail, and snow. Temperature a little below the mean in all districts; the maxima usually below 50° at all but the south-western stations, and below 40° in Scotland on the 8th and 9th. Nights cold, especially over Scotland and Central England, the thermometer on grass falling to 19° in London on the night of the 7th and at Manchester on the 8th, while 25° was recorded in London on more than one occasion.

Rainfall above the mean everywhere, and considerably so in the eastern, north-western, and south-western parts of England. The heaviest amount recorded is that at Yarmouth, where 3·36 ins. (or four and a half times the mean) were measured in the course of the week. Very heavy snow showers in the north on Monday the 11th.

Wind very boisterous generally. Northerly at the commencement of the week, but backing to S.W. on Saturday and blowing a strong gale from that quarter in all places on the ensuing night and morning; veering to N.W. on Sunday, and again blowing a gale in the north and west.

The data from which the summary on the preceding page has been calculated are as follow:—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	46	30	37·5	−3·2	7	0·30	−0·22
	Aberdeen	45	31	38·3	−3·2	7	1·65	+0·97
	Glenalmond	47	29	36·5	−4·0	3	0·72	?
	Leith	49	32	40·4	−0·4	5	0·71	+0·23
2. ENGLAND, N.E.	Shields	49	31	40·1	−1·9	6	0·97	+0·31
	Durham	49	27	37·7	−5·3	6	1·90	+1·21
	Scarborough	46	33	41·0	−1·5	6	1·70	+0·92
	York	47	30	39·7	−2·7	7	1·54	+1·00
	Kelstern (Lincolnshire) ℳ	46	28	37·3	−5·2	7	1·40	+0·89
3. ENGLAND, E.	Yarmouth	50	35	41·2	−2·1	7	3·36	+2·63
	Cambridge	51	29	40·1	−2·9	7	1·09	+0·76
	Audley End (Saffron Walden) ℳ	50	31	39·3	−4·1	7	1·46	?
	Rothamsted	51	29	39·0	−4·2	6	1·59	+1·12
4. MIDLAND COUNTIES	Nottingham	54	30	40·2	−2·2	5	0·96	+0·48
	Loughborough	48	30	40·4	−2·3	5	1·15	?
	Leicester	49	31	40·0	−2·6	5	0·95	?
	Shrewsbury ℳ	51	30	39·0	−4·0	7	1·72	?
	Hereford ℳ	53	32	40·7	−2·9	7	1·34	+0·71
	Cirencester	50	30	39·7	−3·6	5	1·25	+0·65
	Oxford	51	32	40·3	−2·7	5	0·76	+0·32
5. ENGLAND, S.	London	52	31	40·7	−2·9	5	1·00	+0·56
	Marlborough ℳ	51	30	40·0	−3·6	5	1·84	+1·24
	Strathfield Turgiss ℳ	52	30	40·5	−3·3	4	1·55	+1·08
	Dover	51	33	40·9	−3·3	7	1·32	+0·41
	Hastings	51	33	41·1	−3·3	6	0·82	+0·17
	Hurst Castle	52	33	42·2	−2·5	5	0·75	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	48	30	38·9	−3·4	7	2·82	?
	Glasgow	47	31	38·9	−3·1	3	0·76	−0·10
	Ardrossan	50	31	40·9	−1·4	4	0·81	−0·12
	Silloth	51	28	40·1	−3·3	2	1·04	+0·38
	Douglas (Isle of Man)	50	31	41·9	−1·8	5	1·69	?
7. ENGLAND, N.W.	Stonyhurst	47	30	39·5	−3·3	5	3·03	+1·90
	Manchester	47	29	38·8	−3·9	5	1·71	+0·90
	Liverpool Observatory (Bidston)	50	37	42·9	−0·4	5	1·03	+0·44
	Holyhead	52	38	45·6	+0·9	6	1·47	+0·75
8. ENGLAND, S.W.	Pembroke	53	39	44·9	−0·8	7	1·76	+0·86
	Falmouth	53	39	45·1	−2·5	7	2·19	+0·98
	Plymouth	54	34	42·9	−3·6	7	1·16	+1·39
9. IRELAND, N.	Mullaghmore	49	37	43·6	+0·3	6	1·79	?
	Dunfanaghy	51	32	43·0	0·0	7	1·84	?
	Greencastle	49	34	41·4	−1·4	6	2·06	+0·99
	Armagh	48	31	39·6	−3·8	6	0·45	−0·14
	Donaghadee	49	32	41·2	−2·0	6	1·63	?
10. IRELAND, S.	Kingstown	52	34	41·4	−2·5	3	0·50	−0·04
	Parsonstown	53	26	39·5	−4·2	5	1·17	+0·60
	Roche's Point	52	37	43·3	−1·4	4	1·63	+0·50
	Valencia	54	36	45·1	+0·3	6	2·00	+0·88
SCOTLAND, N.	Sumburgh Head	45	28	37·0	−4·4	7	2·51	+1·92
	Stornoway	46	30	37·5	−4·3	7	1·12	?
	Thurso	49	27	39·3	−2·2	7	1·47	+0·59
	Wick	46	28	36·3	−5·2	7	1·19	+0·42
——	Scilly (St. Mary's)	54	44	48·3	−6·0	7	1·06	+0·08
	Jersey (Noirmont)	54	41	46·1	−1·9	6	1·06	+0·35

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending November 11, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, November 5.

Weather moderately fair over the greater part of Western Europe, but hail falling at Dover and rain at Aberdeen, Cambridge, and some French stations. Sky more cloudy later in day and rain falling generally.

Temperature slightly lower in the W. and higher in the E. than on 4th; not much change elsewhere. Readings varying from 48° at Scilly to 37° at Oxford, and falling in following night to about 34° at our inland stations.

Wind northerly on nearly all coasts, generally moderate or fresh in force, but blowing strongly at Scilly, Dover, and in the Baltic, and increasing considerably in the N. during the day and following night.

Sea moderate to slight, except in the S.W., N.E., and in the Skager Rack.

Barometer rising at our southern stations, falling elsewhere. Readings highest to the westward of Ireland, lowest over the Baltic. Fall of the barometer becoming brisk in E. of Scotland during the afternoon.

Wednesday, November 6.

Weather moderately fine at most of our stations, cloudy or dull on the Continent; hail falling at Yarmouth, rain at Sumburgh Head, sleet at Brussels, snow in Sweden. Rain occurring subsequently, except in the W. and S. of England.

Temperature risen except in E. and S.E. Readings uniform. Minima in following night about 35° at our inland stations.

Wind still northerly (N.W. to N.E.) in direction, fresh to strong on our coasts, and blowing a gale in the Shetlands; falling rather lighter in most places during the day, but rising to a fresh gale on our N.E. coast and at Scilly.

Sea high in the N. and rough on many parts of our coasts.

Barometer beginning to rise in the N.E, falling briskly elsewhere. Large depression still lying over the Baltic; a small subsidiary disturbance over the North Sea, travelling south eastwards.

Thursday, November 7.

Weather rainy and foggy in N. Germany, at some of our E. coast stations, and at Biarritz; snow falling at Christiansund, but sky moderately clear elsewhere. Rain during following night at all our stations; snow in north.

Temperature risen slightly over Scandinavia and at Biarritz, fallen at most other places, very uniform over these islands. Minima between 30° to 34° at our inland and northern stations.

Wind northerly in our islands generally, but drawing into S. and S.W. in the W. of France and over N. Germany, moderate in force. Wind backing to W. and S.W. on our N.W. coasts in the evening.

Sea rough in the N.E. and in the Minch.

Barometer rising except in the N. Depressions still shown over the North Sea and the Baltic, and new one advancing to our N.W. coasts at night.

Friday, November 8.

Weather cloudy and unsettled in all places, rain over the E. of England, snow in the Shetlands, hail in the Hebrides. Rain, hail, and snow showers general later in the day.

Temperature much higher at 8 A.M. over the S. of England and the Channel than on the 7th, lower elsewhere, still uniform. Minima in following night between 30° and 33° in the inland and northern districts.

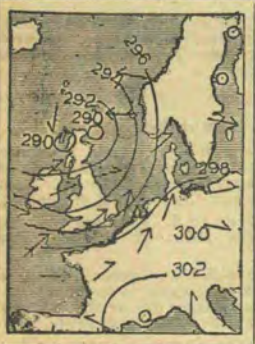
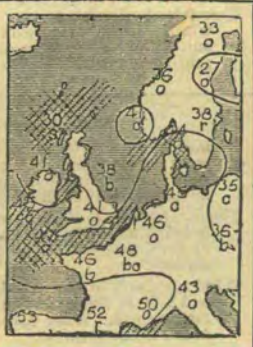
Wind north-easterly in the N., northerly in the W., and westerly to south-westerly in the S.; strong generally, and blowing gale in S.W. Fresh to strong northerly gale in most places during the day and evening.

Sea rough or high in N., W., and S.

Barometer falling quickly over these Islands, rising on the Continent; deep depression over N.W. England, and moving south-eastward; barometer rising quickly in the evening.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, November 9. *Weather* exceedingly fine over the greater part of the country, but dull at some of our north-western and northern stations, and cloudy on the Continent. Snow falling at Christiansund, the Shetlands, and Thurso. Weather becoming very unsettled in evening. *Temperature* risen over France, fallen over these Islands—several degrees in the S.E., but rising again during the day. Readings as low as 32° at Cambridge, and 30° in the N.E. of Scotland. Frost experienced at inland and Scotch stations at night. *Wind* north-westerly generally, but backing to S. in Ireland. The northerly wind moderate on most coasts but strong in the S.E. South-westerly gales springing up in the W. and N.W. in the evening, and spreading over us during night. *Sea* rough E. and S.W. *Barometer* risen rapidly in most places, but increase checked in N.W., and very large and sudden fall in progress there during day. Deep depression advancing over our northern districts from W.
		**Sunday, November 10.** *Weather* fine at 8 A.M. in N.E., N., and N.W., cloudy elsewhere with much rain over southern and central England. *Very* unsettled all day; heavy rain falling in the S., snow in the N. *Temperature* much higher than on the 9th, except in the S.W. of France, especially over England. Thermometer falling again at night, but the minima not very low over England. *Wind* easterly at Skudesnaes and in the Shetlands, northerly in the N.W., and westerly to southerly in the S. and E.; fresh to very strong S.W. gale over nearly the whole of western Europe during day, veering to the northward in the N. and W. at night. *Sea* rough or high in the N. and S. *Barometer* falling everywhere very rapidly over these Islands; deep depression crossing Scotland, and slight subsidiary disturbances over England. Pressure increasing quickly in W. in the evening as disturbance passes away.
		**Monday, November 11.** *Weather* fair over the greater part of these Islands and the N. of France, but snow falling in the N. of Scotland and sky overcast with rain to the eastward of the North Sea. Rain, hail, and snow, very general during the day, and heavy in the N. and W. *Temperature* risen over France, fallen over these Islands; readings varying from 47° at Scilly to 32° at Wick. Frost experienced in the N. and E. at night. *Wind* north-westerly on all our coasts, southerly over Denmark and Scandinavia, still strong in force but gale subsiding. Wind backing to S.W. temporarily over south-eastern England in the evening. *Sea* rough to high, except on our E. coast. *Barometer* rising, except in the S. and E. of France, Denmark, Norway, and Sweden; depression shown over the S. of Norway. Secondary disturbance passing across England during day, causing a decrease and subsequent recovery of pressure.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ➔ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 705.—150.—11/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 41.] WEEK ENDING MONDAY, NOVEMBER 18, 1878. [*Price 2d.*

[*Annual subscription post paid*, 12s. 6d.

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Falmouth, Plymouth.
9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	52	30	40	1 below.	3	7	3 more.
	2. ENGLAND, NORTH-EAST	49	26	40	3 below.	5	25	18 more.
	3. ENGLAND, EAST	50	29	40	3 below.	6	23	16 more.
	4. MIDLAND COUNTIES	52	26	40	3 below.	5	8	2 more.
	5. ENGLAND, SOUTH	48	29	40	4 below.	5	13	9 more
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	49	26	40	3 below.	1	1	8 less.
	7. ENGLAND, NORTH-WEST	49	26	42	2 below.	3	2	6 less.
	8. ENGLAND, SOUTH-WEST	51	33	42	5 below.	5	16	6 more.
	9. IRELAND, NORTH	50	26	42	1 below.	5	6	1 more.
	10. IRELAND, SOUTH	51	26	40	4 below.	2	1	7 less.

General Remarks.

Weather tolerably fine in the western districts, but extremely unsettled in the east and south-east, with frequent and heavy showers of snow, hail, and rain. Thunder and lightning reported on some occasions. Temperature very uniform; the maxima reaching 50° on one or two occasions only, and below 40° at some of the eastern and central English stations on the 12th. Night frosts experienced in most places during the early part of the week, the sheltered thermometer falling as low as 26° at many of our stations. The amount of daily range extremely small at our eastern and south-eastern stations on the 16th and 17th.

Rainfall variable. Very much more than the mean in "England N.E. and E.," several tenths in excess over "England S. and S.W.," but considerably short of the mean in "Scotland W.," "England N.W.," and "Ireland S." Heavy snowstorm in the northern parts of England early in the week.

Wind generally northerly (N.E. to N.W.) and strong in force. Heavy northerly gales locally in the north and west on the 12th, a severe north-easterly gale in the east of England on the 15th and a fresh to strong northerly gale at the same time in the north-west. Hard northerly gale at Scilly nearly all the week.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	49	31	39·8	−0·9	4	1·64	+1·12
	Aberdeen	47	33	40·4	−1·1	4	0·87	+0·19
	Glenalmond	46	30	39·2	−1·3	1	0·05	?
	Leith	52	30	41·8	+1·0	1	0·02	−0·46
2. ENGLAND, N.E.	Shields	48	29	41·5	−0·5	6	1·64	+0·98
	Durham	47	29	39·0	−4·0	5	3·70	+3·01
	Scarborough	47	28	42·2	−0·3	4	2·09	+1·31
	York	49	26	38·7	−3·7	5	1·62	+1·08
	Kelstern (Lincolnshire) ℳ	46	27	38·2	−4·3	7	3·21	+2·70
3. ENGLAND, E.	Yarmouth	47	31	41·1	−2·2	7	2·78	+2·05
	Cambridge	50	30	40·3	−2·7	5	2·05	+1·66
	Audley End (Saffron Walden) ℳ	47	29	39·7	−3·7	6	2·67	?
	Rothamsted	46	30	39·3	−3·9	6	1·62	+1·15
4. MIDLAND COUNTIES	Nottingham	48	26	40·1	−2·3	6	0·67	+0·19
	Loughborough	49	29	39·9	−2·8	5	0·76	?
	Leicester	48	30	40·2	−2·4	6	1·25	?
	Shrewsbury ℳ	46	29	39·3	−3·7	4	0·80	?
	Hereford ℳ	47	27	40·1	−3·5	3	0·46	−0·17
	Cirencester	45	30	39·0	−4·3	4	1·01	+0·41
	Oxford	52	28	40·2	−2·8	5	0·67	+0·23
5. ENGLAND, S.	London	47	32	40·5	−3·1	5	0·89	+0·45
	Marlborough ℳ	46	29	38·2	−5·4	4	1·09	+0·49
	Strathfield Turgiss ℳ	48	29	39·2	−4·6	4	1·05	+0·58
	Dover	47	33	41·7	−2·5	5	2·23	+1·32
	Hastings	48	31	39·7	−4·7	7	2·09	+1·44
	Hurst Castle	48	32	40·1	−4·6	2	0·49	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	46	30	38·1	−4·2	2	0·49	?
	Glasgow	48	31	41·0	−1·0	0	—	−0·86
	Ardrossan	49	30	41·5	−0·8	1	0·01	−0·92
	Silloth	48	26	39·4	−4·0	0	—	−0·66
	Douglas (Isle of Man)	48	33	41·4	−2·3	4	0·20	?
7. ENGLAND, N.W.	Stonyhurst	48	35	40·7	−2·1	2	0·13	−1·00
	Manchester	49	26	39·8	−2·9	3	0·29	−0·52
	Liverpool Observatory (Bidston)	46	32	41·8	−1·5	3	0·21	−0·38
	Holyhead	49	34	44·5	−0·2	4	0·18	−0·54
8. ENGLAND, S.W.	Pembroke	49	36	42·6	−3·1	6	2·13	+1·23
	Falmouth	48	33	43·0	−4·6	6	2·11	+0·90
	Plymouth	51	33	40·7	−5·8	4	0·54	−0·23
9. IRELAND, N.	Mullaghmore	48	32	42·5	−0·8	5	0·51	?
	Dunfanaghy	47	32	42·1	−0·9	5	0·76	?
	Greencastle	50	31	42·6	−0·2	6	1·14	+0·07
	Armagh	47	26	38·1	−5·3	5	0·64	+0·05
	Donaghadee	48	29	43·5	+0·3	2	0·04	?
10. IRELAND, S.	Kingstown	46	28	39·4	−4·5	1	0·01	−0·53
	Parsonstown	48	26	37·6	−6·1	2	0·04	−0·53
	Roche's Point	49	30	41·1	−3·6	0	—	−1·13
	Valencia	51	32	43·1	−1·7	6	0·45	−0·67
SCOTLAND, N.	Sumburgh Head							
	Stornoway	47	30	39·2	−2·6	4	0·81	?
	Thurso	49	34	42·8	+1·3	6	0·90	+0·02
	Wick	47	30	39·2	−2·3	5	0·99	+0·22
——	Scilly (St. Mary's)	50	32	44·4	−3·9	5	1·32	+0·34
	Jersey (Noirmont)	49	37	43·5	−4·5	7	3·35	+2·64

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending November 18, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, November 12.

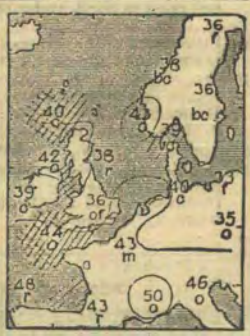
Weather variable; snow, hail, and rain showers at several stations. No improvement during day, rain or snow being measured in most places. Thunder heard at Scilly.

Temperature lower than on 11th, except in N.; low in the S.E., but moderately uniform. *Maxima* low generally, and frost occurring in E. and N. at night.

Wind northerly on our coasts, westerly in France, southerly to the eastward of the North Sea; moderate to strong in force, and blowing a gale at Scilly and Stornoway. Wind stronger generally later on, and heavy gale in N. Scotland and at mouth of Channel in afternoon.

Sea very rough in the S. and in the Minch, tremendously high at Thurso in afternoon.

Barometer rising in N. falling in S. A large depression over the W. of Norway. Smaller disturbances, one off the Yorkshire coast and another over the Channel and N.W. of France; the last subsequently getting deeper.



Wednesday, November 13.

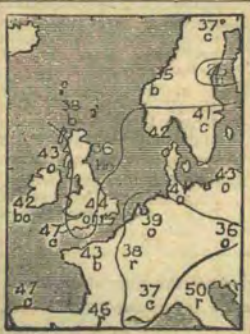
Weather exceedingly unsettled, rain falling in places, and some fog and mist prevailing. Rain falling during the day, except in N.W. and N.E.; heavily over France. Thunderstorm at Dover.

Temperature risen a little, except in south-western France; still uniform. Maxima higher than on 12th, and scarcely any frost experienced in following night.

Wind northerly on our coasts, but southerly over the eastern half of western Europe; strong in force at our western stations, and blowing a severe gale at Scilly and Coruña.

Sea rough in S., high in the W. and N.

Barometer rising in W. and N., falling slightly in S.E. and quickly in the S.W. of France. Readings high over the Atlantic and Scandinavia. Large band of low pressure stretching southward from the W. of Norway across the North Sea and France to the Gulf of Lyons. Four distinct minima found in this band.



Thursday, November 14.

Weather dull and wet in the S.E., but very fine at first over the greater part of these islands and the W. of France. Rain falling subsequently except in the E. of Ireland and on some parts of our southern coast.

Temperature higher than on the 13th over England and Ireland, lower elsewhere. Weather very cold in the E. and S.E. of France.

Wind easterly over the North Sea, northerly on our coasts, north-westerly to westerly in France, and southerly in the Netherlands. Moderate to strong generally, and blowing a gale at Biarritz and Corunna. The easterly wind rising to a gale over Scandinavia at night, which extended to our N.E. coast before morning.

Sea rough in the S.W. and E.

Barometer rising except in the S.E. Readings highest to the westward of Ireland, lowest in the S.E. Pressure giving way again at night, and small deep depression *apparently* advancing from the eastward over Denmark.

Friday, November 15.

Weather fair in Ireland and the W. of Scotland, dull and wet in most other places. No improvement during the day; cold rain falling everywhere, heavily in the East.

Temperature risen considerably in the N.W. and N.E., but changed slightly and irregularly in the S. and over France. Readings very uniform and diurnal range small.

Wind still easterly over North Sea, north-easterly to northerly on our coasts, and westerly over France; fresh generally. An easterly gale blowing over the S. of Scandinavia and a severe north-easterly gale in the N.E. of England. Gales in many places during the day and succeeding night.

Sea high W. and E.

Barometer falling, except in the N. of Scotland and Sweden. Depression over southern portion of North Sea, much deeper than on 14th, and getting still deeper during the day, but scarcely changing its position.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, November 16.

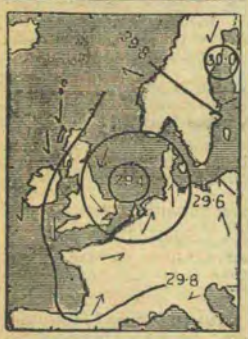
Weather rather finer over the greater part of England, but still dull and wet in the E. of Great Britain; unsettled all day and rain general, with some hail.

Temperature risen slightly in Ireland and Scotland, changed little elsewhere. Very uniform over western Europe. The maxima between 45° and 50° in most places.

Wind south-westerly over Belgium and the N.E. of France, southerly to easterly on the eastern shores of the North Sea, but northerly on our coasts; fresh to strong in force and blowing a gale in the Irish Sea, at Scilly, in N. Germany, and the S. of Norway. Lulling somewhat in the E. and increasing in the W. during the day.

Sea rough at many stations.

Barometer rising slightly over France and the S.E. of England, falling elsewhere. Depression now considerably deeper; still lying near the Helder, where the 8 A.M. reading was 28·8 in. Barometer subsequently rising, except in the S.W., and disturbance beginning to fill up.



Sunday, November 17.

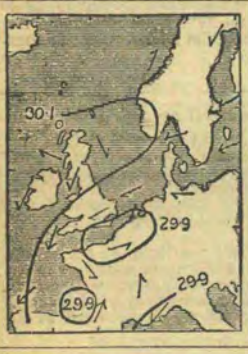
Weather fine in all our more western and northern districts, cloudy or dull in the east, with rain at York and Yarmouth. Weather subsequently becoming very gloomy in the S.E., and rainy in the S. and over France.

Temperature fallen somewhat in the N.W. and N., changed little elsewhere; readings very uniform. Minima above 42° in following night except at Ardrossan and Wick.

Wind northerly on our coasts, westerly to south-westerly over France and the Netherlands, south-easterly to easterly over Denmark and Scandinavia; fresh to strong in force except in the S. Fresh northerly gale on our N.E. coast at night.

Sea rough in N.E., N., and N.W., as well as at Scilly.

Barometer rising briskly at 8 A.M., but increase ceasing in the S.E. during the day though continuing elsewhere. Gradients round the depression over the North Sea consequently "stepening."



Monday, November 18.

Weather fair generally and sky clear at many of our stations, but rain falling at Brussels and Lyons. Fair all day and scarcely any rain collected.

Temperature lower than on the 18th in the W. and N., as well as over the S. of Scandinavia and S. of France; higher elsewhere. Readings still very uniform. The minimum in following night was 29° at Leith and Cambridge.

Wind north-easterly on most coasts, but south-westerly at Biarritz and in the N.E. of France; generally moderate in force. Light south-westerly breezes appearing in the N. of Scotland later in the day.

Sea rough both on our N.E. and S.W. coasts.

Barometer rising everywhere. Depression in the S.E. filling up, and a broad band of high readings stretching from S.W. to N.E. across these Islands.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ➔ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 705.—150.—11/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 42.] WEEK ENDING MONDAY, NOVEMBER 25, 1878. [*Price 2d.*

[*Annual subscription post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Falmouth, Plymouth.
9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	50	28	39	1 below.	4	13	8 more.
	2. ENGLAND, NORTH-EAST	50	27	37	5 below.	4	4	2 less.
	3. ENGLAND, EAST	53	27	39	3 below.	3	3	3 less.
	4. MIDLAND COUNTIES	52	26	36	6 below.	2	5	1 less.
	5. ENGLAND, SOUTH	54	24	41	2 below.	3	3	4 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	50	26	40	2 below.	3	4	6 less.
	7. ENGLAND, NORTH-WEST	47	29	37	6 below.	2	2	7 less.
	8. ENGLAND, SOUTH-WEST	54	29	41	5 below.	3	3	7 less.
	9. IRELAND, NORTH	51	29	39	3 below.	3	2	6 less.
	10. IRELAND, SOUTH	50	24	40	4 below.	2	1	8 less.

General Remarks.

Weather cold and generally cloudy, especially in the east, with frequent dense fogs over England and Ireland. Highest day temperature seldom exceeding 50° and often below 45°; the higher values recorded towards the close of the week. Nights cold, but very few severe frosts reported owing to the prevalence of cloud. A reading of 24° was however, recorded at one station in "Ireland, S.," while in "England, S." 24° was the minimum registered at Strathfield Turgiss, and 25° at Marlborough. At other stations in these districts the minima were not nearly so low.

Rainfall less than the mean generally and especially over the western districts, but several tenths above it in "Scotland, E.," where some heavy falls were measured towards the close of the week. Heavy fall of snow in "Scotland, W." on the evening of Monday the 25th.

Wind generally south-westerly to westerly in the north, but easterly (N.E. to S.E.) in the south. On the 25th, however, south-westerly winds set in at the more southern stations, while easterly breezes were reported from Scotland. Light or moderate in force generally, but blowing strongly from N.E. in Scotland on the 25th.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	50	32	41·2	+0·7	3	1·27	+0·77
	Aberdeen	50	32	40·5	+0·5	6	0·98	+0·30
	Glenalmond	45	28	36·8	−3·4	4	1·22	?
	Leith	48	29	38·7	−1·6	4	1·60	+1·17
2. ENGLAND, N.E.	Shields	47	33	39·5	−1·4	4	0·69	+0·04
	Durham	44	29	36·4	−5·0	5	0·40	−0·34
	Scarborough	46	30	37·6	−3·5	2	0·29	−0·48
	York	46	27	34·6	−6·6	5	0·29	−0·28
	Kelstern (Lincolnshire) ℳ	50	28	35·1	−6·0	3	0·51	+0·05
3. ENGLAND, E.	Yarmouth	52	34	42·2	+0·4	2	0·32	−0·43
	Cambridge	52	29	38·0	−3·8	4	0·23	−0·20
	Audley End (Saffron Walden) ℳ	53	31	38·6	−3·5	3	0·24	?
	Rothamsted	51	27	38·8	−3·2	4	0·29	−0·22
4. MIDLAND COUNTIES	Nottingham	44	26	35·1	−6·4	2	0·48	−0·05
	Loughborough	42	28	35·1	−6·6	2	0·54	?
	Leicester	42	29	35·7	−5·9	3	0·66	?
	Shrewsbury ℳ	41	27	33·6	−8·8	2	0·35	?
	Hereford ℳ	44	31	35·6	−7·1	2	0·43	−0·22
	Cirencester	51	27	37·9	−4·6	3	0·72	+0·06
	Oxford	52	29	38·7	−3·4	3	0·28	−0·18
5. ENGLAND, S.	London	53	33	41·8	−0·5	3	0·21	−0·26
	Marlborough ℳ	52	25	38·8	−3·9	3	0·28	−0·34
	Strathfield Turgiss ℳ	52	24	39·1	−3·7	4	0·23	−0·26
	Dover	52	35	42·8	+0·2	3	0·18	−0·68
	Hastings	52	35	41·9	−1·1	3	0·33	−0·31
	Hurst Castle	54	36	42·1	−1·9	3	0·33	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	50	29	41·3	−0·4	4	1·08	?
	Glasgow	48	31	40·6	−0·7	3	0·46	−0·50
	Ardrossan	50	31	42·1	+0·4	2	0·12	−0·79
	Silloth	45	26	38·8	−3·1	2	0·12	−0·55
	Douglas (Isle of Man)	50	30	38·9	−4·2	2	0·12	?
7. ENGLAND, N.W.	Stonyhurst	44	31	36·4	−5·7	4	0·24	−0·88
	Manchester	43	29	35·1	−6·8	2	0·24	−0·54
	Liverpool Observatory (Bidston)	45	29	35·6	−7·1	1	0·08	−0·43
	Holyhead	47	36	41·6	−2·5	1	0·02	−0·80
8. ENGLAND, S.W.	Pembroke	46	29	38·7	−6·3	2	0·26	−0·64
	Falmouth	54	36	42·9	−4·0	4	0·18	−0·90
	Plymouth	54	30	41·0	−4·9	3	0·40	−0·42
9. IRELAND, N.	Mullaghmore	50	31	40 6	−2·1	2	0·19	?
	Dunfanaghy	49	35	41·8	−0·6	4	0·30	?
	Greencastle	51	32	39·9	−2·4	4	0·40	−0·58
	Armagh	44	29	36·5	−6·4	1	0·09	−0·52
	Donaghadee	45	30	37·4	−5·3	2	0·15	?
10. IRELAND, S.	Kingstown	45	33	38·8	−4·7	1	0·01	−0·58
	Parsonstown	46	24	36·1	−7·1	2	0·06	−0·58
	Roche's Point	48	33	41·4	−2·9	2	0·23	−0·97
	Valencia	50	32	43·2	−1·0	2	0·12	−1·14
SCOTLAND, N.	Sumburgh Head*							
	Stornoway	50	30	40·8	−0·9	3	0·59	?
	Thurso	50	25	39·6	−1·7	6	0·42	−0·39
	Wick	50	23	39·7	−1·4	2	0·16	−0·58
	Scilly (St. Mary's)	54	41	46·2	−1·3	2	0·24	−0·71
	Jersey (Noirmont)	54	35	45·2	−1·7	3	1·26	+0·54

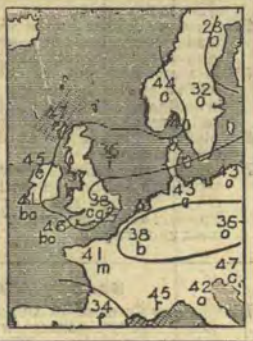
The observations made in "Scotland N," and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.
* Telegraphic communication with Sumburgh Head interrupted for a few days.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending November 25, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, November 19.

Weather cloudy in Scotland, but fair and dry over the whole of western Europe; much fog over eastern and central England. No great change during the day, the only rain being 0·01 in. at some eastern stations.

Temperature risen quickly in Scotland, fallen elsewhere, several degrees over England. Readings varying from 46° at Scilly and 47° at Stornoway to 31° at Leith. Minima in following night about 28° to 32° at the central stations.

Wind moderate to fresh from E. or N.E. over France and the Channel, and from S.W. over Scotland; calms over England and Ireland. Very light airs in our neighbourhood all day but fresh gale at Toulon.

Sea smooth, except near the Hebrides.

Barometer falling slightly at Stornoway, Christiansund, and over the Shetlands, rising briskly elsewhere. Elongated anticyclone over Ireland, England, and the North Sea. Fall of the barometer subsequently spreading over Scotland and Norway.

Wednesday, November 20.

Weather still fair and dry, but cloudy in the N. and N.W. and exceedingly foggy over England. At York the fog very dense all day. The only rain reported was 0·01 in. at Aberdeen.

Temperature risen slightly, except over France, where it was little changed. The highest 8 A.M. reading was 49° at Thurso, the lowest 29° at York. The maxima were as high as 50° in some parts of Scotland, minima were between 26° and 30° at the central stations.

Wind moderate or light from E. to N.E. over France and the Channel, and from S.W. over Scotland and the northern parts of Ireland and England, but fresh from the westward in Scandinavia; calms over England.

Sea nearly smooth, except at Christiansund and the Scaw.

Barometer was falling, except in Scotland. The anticyclone still stretched across Ireland, England, and the North Sea, while depressions were shown over the Mediterranean and off the W. of Norway.

Thursday, November 21.

Weather still cloudy generally, with much fog over England. Some rain in the extreme N. of Scotland and in Norway during the day, weather dry elsewhere.

Temperature fallen in most places, several degrees to the eastward of the North Sea. Varying over these islands from 47° at Stornoway, and 43° at Scilly to 28° at York.

Wind still moderate or fresh from the westward or south-westward over Scandinavia, and from E. to N.E. over France and the Channel; very light and variable on our W. and E. coasts.

Sea nearly smooth except at Christiansund and Cape Gris Nez.

Barometer rising somewhat in the N.W. of Norway, falling elsewhere. Readings high and uniform over these islands and the North Sea comparatively low over Lapland and the Mediterranean.

Friday, November 22.

Weather rainy in the Shetlands, dry elsewhere though still cloudy and very foggy. Some rain subsequently at our northern stations, as well as in Denmark and the W. of Norway.

Temperature lower than on the 21st, except in the N.W. of France, and south-western and central English stations. Readings varying from 46° at Thurso and 43° in the S.W. to 32° at Liverpool. The *minima* in the following night about 30° to 32° over the inland districts.

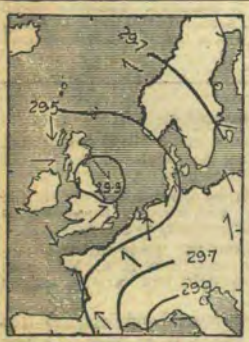
Wind light from E. over France and the Channel, from W. to S.W. at some of our northern stations, and over Norway and Sweden, but a north-easterly breeze reported locally in the N. of Scotland and at Sumburgh Head.

Sea nearly smooth except in the N.

Barometer fallen except at the eastern and central French stations. Readings very uniform, between 30·0 and 30·1 in., over England, Ireland, and France, but moderate gradients existing over Scotland.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, November 23. *Weather* cloudy and dull or foggy in most places with rain at Donaghadee and Leith, and snow at Sumburgh Head. Rain falling during the night except in Ireland and the N. of England. *Temperature* higher in the W. and over France than on the 22nd; lower elsewhere—several degrees in the N. Minimum in the following night at Wick 23°. *Wind* very light and variable on most of our coasts, but south-easterly to easterly in the S., and westerly over Scandinavia; blowing a gale at Christiansund and Wisby, and a strong breeze at Scilly in the afternoon. *Sea* slight at first except at Christiansund, but subsequently rising at Scilly. *Barometer*, after rising in Scotland, on the eastern shores of the North Sea and in the E. of France, falling again generally. Readings still very uniform in the W., N., and E. Pressure giving way rather briskly in the S.W. in the afternoon and evening.
		Sunday, November 24. *Weather* nearly clear in the southern parts of Scandinavia, dull or cloudy elsewhere, with rain in the E., S., and S.W.; snow at Nottingham. Weather very gloomy all day, and rain falling generally. *Temperature* lower over central England than on the 23rd, higher in most other places; several degrees in the S.W. of France. The maxima high (51° to 54°) in the S. during the day. *Wind* south-westerly over France, south-easterly to easterly over Great Britain, and north-easterly in Ireland; moderate in force. Westerly breezes blowing over Norway and Sweden. *Sea* moderate or smooth except off the Scilly Islands and Christiansund. *Barometer* falling generally, briskly in the S.W. Readings high over Denmark and in the S. of France, and a small depression advancing towards the Scilly Isles from the south-westward. Pressure giving way all day.
		**Monday, November 25.** *Weather* fine over Ireland still dull or cloudy elsewhere, with rain at several stations; snow at Oxō, fog and mist over England. Rain falling during the day except in the W. and S.W. heavily in the E. of Scotland. Heavy snow in the W. of Scotland. *Temperature* fallen in the W., risen in the N., E. and S., very quickly in the S.E. After 8 A.M. the thermometer fell quickly, the maxima for the day having occurred in the morning. *Wind* easterly to south-easterly in the south of France, south-westerly to southerly at our southern and south-eastern stations, easterly in the N. The easterly breezes blowing strongly and rising to a fresh gale at Nairn in the night. *Sea* generally moderate to slight, but rather rough at Hurst Castle and the Scaw. *Barometer* falling in all parts of western Europe, but rising in Sweden. Readings relatively high both over the Gulf of Bothnia and the S. of France, a depression lying over the N. of England, and moving north-eastwards. Pressure recovering somewhat in our islands during the day.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 705.—150.—11/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 43.] WEEK ENDING MONDAY, DECEMBER 2, 1878. [*Price 2d.* [*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Falmouth, Plymouth.
9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	44	23	36	5 below.	5	3	2 less.
	2. ENGLAND, NORTH-EAST	45	27	37	5 below.	5	9	3 more.
	3. ENGLAND, EAST	45	21	37	5 below.	6	10	5 more.
	4. MIDLAND COUNTIES	47	24	36	6 below.	4	4	2 less.
	5. ENGLAND, SOUTH	48	27	38	5 below.	5	10	4 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	47	24	36	6 below.	5	5	4 less.
	7. ENGLAND, NORTH-WEST	47	29	38	5 below.	5	6	3 less.
	8. ENGLAND, SOUTH-WEST	47	31	41	5 below.	5	7	3 less.
	9. IRELAND, NORTH	47	26	38	4 below.	6	11	3 more.
	10. IRELAND, SOUTH	52	21	39	5 below.	5	5	4 less.

General Remarks.

Weather showery and changeable, but finer on the whole in the west and north than in the south and east. Temperature below the mean in all districts, the deficit varying from four to six degrees. The maxima seldom above 45° except in "England, S.W." and frequently below 40° in the northern districts. Several night frosts reported, the most severe being those of the 29th and 30th November; on the former occasion the thermometer on the grass fell to 17° at Glenalmond and to 24° at Loughborough, while on the last-mentioned day the shaded thermometer fell to 21° at Audley End and Parsonstown and that on the grass in London to 17°.

Rainfall several tenths more than the mean in the north-east and east of England and north of Ireland, but less in all other districts. Showers of snow, sleet, and hail very general in Scotland and the east of England.

Wind northerly to north-easterly at the southern and eastern stations, but westerly in the north and north-west during the earlier portion of the week. Light or moderate in force generally, but a fresh to strong gale from N.E. in the east of England on the 28th November.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	42	27	34·6	−5·9	4	0·26	−0·24
	Aberdeen	43	27	36·7	−3·3	5	0·31	−0·37
	Glenalmond	41	23	33·9	−6·3	5	0·33	?
	Leith	44	28	37·2	−3·1	6	0·40	−0·03
2. ENGLAND, N.E.	Shields	45	30	37·8	−3·1	5	1·81	+1·16
	Durham	42	28	35·4	−6·0	6	1·24	+0·50
	Scarborough	44	33	38·8	−2·3	6	0·40	−0·37
	York	44	28	36·0	−5·2	5	0·52	−0·05
	Kelstern (Lincolnshire) ℳ	41	27	35·0	−6·1	4	0·71	+0·25
3. ENGLAND, E.	Yarmouth	45	31	39·3	−2·5	5	1·12	+0·37
	Cambridge	43	23	35·6	−6·2	5	1·00	+0·57
	Audley End (Saffron Walden) ℳ	42	21	35·8	−6·3	6	0·83	?
	Rothamsted	42	28	35·8	−6·2	6	1·14	+0·63
4. MIDLAND COUNTIES	Nottingham	43	25	35·1	−6·4	4	0·31	−0·22
	Loughborough	47	28	36·2	−5·5	3	0·26	?
	Leicester	42	30	36·3	−5·3	5	0·43	?
	Shrewsbury ℳ	41	24	34·4	−8·0	4	0·46	?
	Hereford ℳ	45	26	36·1	−6·6	4	0·26	−0·39
	Cirencester	44	30	36·6	−5·9	4	0·34	−0·32
	Oxford	42	31	36·7	−5·4	3	0·52	+0·06
5. ENGLAND, S.	London	43	28	37·8	−4·5	5	1·31	+0·84
	Marlborough ℳ	44	29	36·7	−6·0	4	0·61	−0·01
	Strathfield Turgiss ℳ	43	27	36·3	−6·5	5	0·95	+0·46
	Dover	48	32	40·5	−2·1	5	1·52	+0·66
	Hastings	45	30	38·7	−4·3	5	0·89	+0·25
	Hurst Castle	45	31	39·0	−5·0	5	0·44	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	44	27	35·4	−6·3	3	0·34	?
	Glasgow	44	28	36·4	−4·9	6	0·44	−0·52
	Ardrossan	47	27	37·4	−4·3	5	0·51	−0·40
	Silloth	43	24	35·0	−6·9	4	0·42	−0·25
	Douglas (Isle of Man)	46	27	37·6	−5·5	6	0·58	?
7. ENGLAND, N.W.	Stonyhurst	43	29	36·7	−5·4	5	0·46	−0·66
	Manchester	44	29	35·7	−6·2	4	0·57	−0·21
	Liverpool Observatory (Bidston)	43	30	37·1	−5·6	4	0·31	−0·20
	Holyhead	47	34	41·8	−2·3	6	0·85	+0·03
8. ENGLAND, S.W.	Pembroke	47	35	40·7	−4·3	5	0·56	−0·34
	Falmouth	47	35	42·1	−4·8	5	1·04	−0·04
	Plymouth	47	31	40·1	−5·8	4	0·39	−0·43
9. IRELAND, N.	Mullaghmore	47	28	40·0	−2·7	6	1·26	?
	Dunfanaghy	47	32	40·3	−2·1	6	1·42	?
	Greencastle	47	30	38·2	−4·1	6	1·97	+0·99
	Armagh	45	26	35·2	−7·7	7	0·30	−0·31
	Donaghadee	46	27	38·2	−4·5	6	0·48	?
10. IRELAND, S.	Kingstown	45	30	38·4	−5·1	5	0·32	−0·26
	Parsonstown	46	21	34·3	−8·9	5	0·42	−0·22
	Roche's Point	49	32	39·7	−4·6	4	0·49	−0·71
	Valencia	52	32	41·9	−2·3	6	0·73	−0·53
SCOTLAND, N.	Sumburgh Head	43	32	36·7	−4·6	3	0·29	−0·38
	Stornoway	44	29	36·4	−5·3	3	0·45	?
	Thurso	43	28	35·2	−6·1	4	0·36	−0·45
	Wick	43	27	35·5	−5·6	5	0·21	−0·53
——	Scilly (St. Mary's)	50	38	45·6	−1·9	6	1·35	+0·40
	Jersey (Noirmont)	51	38	43·5	−3·4	7	2·20	+1·48

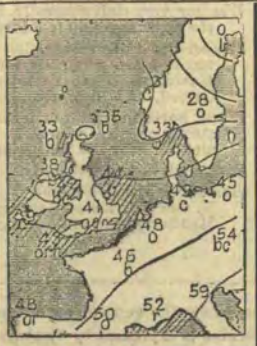
The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending December 2, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.



Weather during the 24 hours succeeding the date of the Charts.

Tuesday, November 26.

Weather moderately fine at several of our stations, but cloudy, gloomy, and foggy generally in the S. and S.E. Rain in N. Germany and Denmark, snow at Hernösand. Snow and hail falling, except in the S.W., later on, heavily at Shields and Greencastle.

Temperature several degrees lower over these Islands and N. of France than on the 25th, higher in Sweden. The *maxima* in the day rather low, but the *minima* at night not below 32°, except in the N. and N.W.

Wind light to moderate, southerly over France and Sweden, north-easterly in the N. of Scotland; variable airs over England; northerly breezes becoming general in the evening.

Sea smooth or nearly so, except at Aberdeen.

Barometer risen over these Islands, fallen over France and to the eastward of the North Sea. The depression from N. England now lying over the Skager Rack. Pressure increasing in nearly all places during the day.

Wednesday, November 27.

Weather fine at most of the Irish stations, cloudy, foggy, and unsettled elsewhere, with rain in the S.E., sleet at Leith. Rain falling subsequently, except in the N. of Scotland, heavily over our south-eastern counties.

Temperature fallen at all the more eastern and southern stations, risen over Ireland and Wales, varying from 46° at Scilly to 27° at Nairn. *Minima* in following night about 32° in central England, and a few degrees below that in Scotland.

Wind southerly in the S.W. of France, in N. Germany, the Baltic, and at Stornoway; northerly to north-easterly over the United Kingdom and North Sea. Blowing strongly in the S.W., but lightly or moderately elsewhere.

Sea rough in the S.W., and afterwards in the E.

Barometer falling over France and the S. and E. of England, rising ~~at~~ all the western and northern stations, except Stornoway. A band of long pressure lying over the Bay of Biscay and N. of France, with 3 minima in it. Barometer rising briskly in N. during the day, and falling in S.E.

Thursday, November 28.

Weather at 8 A.M. wet, gloomy, and dull over N. Germany, the S. and S.E. of England, and the Straits of Dover; exceedingly fine elsewhere. Rain subsequently falling at all but the central and north-eastern stations. Clear night generally.

Temperature risen over these islands, fallen slightly over France and briskly over Scandinavia. Air very uncomfortable. Readings varying from 44° at Shields, to 28° at Thurso. Slight frost at many stations in following night.

Wind north-westerly over the Bay of Biscay, and south-westerly to southerly in Belgium and the E. of France, north-easterly over the United Kingdom; strong in force, and blowing a gale on our E. coasts and at Scilly.

Sea rough in the E., W., and S.W.

Barometer rising briskly in the N. and N.W., and slightly in all other places excepting N. Germany, where it fell. A large area of low pressure in the S.E., with minima over the Straits of Dover and near Cuxhaven. The highest readings lying to the north-westward of these islands. Barometer falling at Stornoway at night.

Friday, November 29.

Weather again very fine over the greater part of England, and the E. and N. of Scotland, dull and wet in the W. and N.W., with hail at Pembroke, snow at the Scaw. Little change during day. Rain in W., rather heavy in Ireland. Aurora and lightning seen in Caithness at night.

Temperature risen in the extreme W., fallen elsewhere—several degrees over England. Readings varying from 45° at Scilly and 40° at Stornoway, to 31° at Shields. Minima in following night very low over central England.

Wind moderate; westerly to southerly in the N. and N.W., northerly to north-easterly in the E. and S., moderate to fresh in force, strong at Scilly. Wind veering over Ireland, and backing over England during the day.

Sea rough in the S.E. and S.W.

Barometer falling quickly in Scotland, rising briskly elsewhere. Pressure high in the S.W., low near the Hebrides and over N. Germany. Small depression passing southward over our western coast during the day, and partially filling up during its journey.

(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, November 30. *Weather* fine in the N. and E. dull or cloudy in most other districts, foggy over England, rainy at Biarritz. Rain in the N. and N.W. late in the day, and subsequently spreading over England. *Temperature* risen in the W., fallen elsewhere; but the rise in W. subsequently extending to other parts of the kingdom. *Wind* very variable, but light. Back to W. again on our N.W. coasts and to S.W. (very light) in the E. of Scotland. North-westerly winds felt on our S.W. coasts, but southerly in the S.W. of France; strong north-easterly breezes in Denmark, north-westerly to westerly in the Netherlands. *Sea* rough at Scilly and in the Skager Rack. *Barometer* still high in the S.W. and also over Sweden, low over N. Germany. Yesterday's western depression now near Jersey but hardly perceptible. Another depression coming towards Scotland in the evening.
		Sunday, December 1. *Weather* fair in the N. and N.W., very dull and gloomy elsewhere, with small rain over our southern and south-eastern counties. Rain very general during the day—heaviest at Dover, where half an inch fell. *Temperature* higher than on November 30th, but still low generally, the maxima reaching 50° at Valentia and Scilly only; in many places but little above 40°. *Wind* light to moderate; north-westerly in the N., north-easterly in the S., and blowing strongly at Scilly (locally). Strong northerly squalls at the mouth of the Channel and in the Irish Sea later on, reaching the force of a gale at Scilly. *Sea* rough in the S.W. and W. *Barometer* unsteady; rising in the N., falling elsewhere. Depression over the north-eastern parts of Great Britain, moving in a south-south-easterly direction. Another depression over the Baltic, and a third over the southern part of the Bay of Biscay.
		Monday, December 2. *Weather* very dull generally, but drier than of late except in the E., where rain fell during the day, with some hail. *Temperature* decreasing, first in the W. and N.W., and afterwards more generally, but the change not very marked. Maximum 51° at Valentia only, 39° at Wick, Nairn, and Oxford. Night minima below 32° in several places. *Wind* northerly to north-easterly, light to moderate, but strong north-westerly in the Bay of Biscay. Southerly airs felt over the Netherlands and N.E. of France. *Sea* rough in the S.W. only. *Barometer* rising generally. Pressure highest in the extreme N. and W., lowest (and irregularly distributed) over the Mediterranean and southern Europe.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 705.—150.—12/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. I. No. 44.] WEEK ENDING MONDAY, DECEMBER 9, 1878. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Falmouth, Plymouth.
9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Kingstown, Parsonstown, Roche's Point, Valencia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	43	20	35	6 below.	3	4	0 (average).
	2. ENGLAND, NORTH-EAST	45	23	34	7 below.	5	10	4 more.
	3. ENGLAND, EAST	43	20	34	8 below.	4	3	2 less.
	4. MIDLAND COUNTIES	45	21	33	9 below.	2	1	5 less.
	5. ENGLAND, SOUTH	44	23	35	8 below.	3	1	5 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	47	21	35	7 below.	2	1	8 less.
	7. ENGLAND, NORTH-WEST	48	23	36	7 below.	2	2	6 less.
	8. ENGLAND, SOUTH-WEST	47	26	38	9 below.	5	6	4 less.
	9. IRELAND, NORTH	48	20	37	6 below.	5	6	2 less.
	10. IRELAND, SOUTH	49	20	37	7 below.	4	3	6 less.

General Remarks.

Weather dull and unsettled, with frequent hail and snow in the east, north, and south-west of the kingdom. Temperature very much below the mean in all districts, the deficit ranging from six to nine degrees. The maxima frequently below 40° at the inland, northern, and eastern stations, and many hard night frosts recorded. Lowest *shade* temperatures registered were those at Glenalmond, Rothamsted, and Parsonstown on the 4th, and Armagh on the 9th, on each of which occasions the thermometer fell to 20°; the lowest *grass* readings were those at Prestwich and London on the 9th, where 14° and 15° were recorded respectively.

Rainfall more than the mean in "England, N.E." and about the average in "Scotland, E.," but several tenths less in other districts. Very heavy snow in "England, N.E." between the 7th and 9th.

Wind northerly (N.W. to N.E.) Light or moderate in force generally, but strong in the west on the 7th and 8th, and reaching strength of hard gale at Scilly.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	42	30	34·9	−5·6	4	0·28	−0·22
	Aberdeen	40	28	34·0	−6·0	6	1·22	+0·54
	Glenalmond	41	20	33·2	−7·0	0	–	?
	Leith	43	26	35·7	−4·6	3	0·23	−0·20
2. ENGLAND, N.E.	Shields	45	28	35·2	−5·7	6	1·11	+0·46
	Durham	42	24	33·0	−8·4	7	1·33	+0·59
	Scarborough	43	32	36·9	−4·2	5	2·04	+1·27
	York	44	28	34·0	−7·2	3	0·15	−0·45
	Kelstern (Lincolnshire) ℳ	39	23	31·9	−9·2	5	0·39	−0·07
3. ENGLAND, E.	Yarmouth	43	28	36·0	−5·8	6	0·75	0·00
	Cambridge	42	24	34·1	−7·7	3	0·18	−0·25
	Audley End (Saffron Walden) ℳ	40	27	33·8	−8·3	3	0·21	?
	Rothamsted	42	20	33·5	−8·5	4	0·20	−0·31
4. MIDLAND COUNTIES	Nottingham	41	22	33·2	−8·3	4	0·08	−0·45
	Loughborough	40	25	33·4	−7·3	2	0·06	?
	Leicester	42	25	34·0	−7·6	1	0·11	?
	Shrewsbury ℳ	42	21	31·8	−10·6	2	0·05	?
	Hereford ℳ	45	23	33·8	−8·9	1	0·12	−0·53
	Cirencester	43	23	33·0	−9·5	3	0·03	−0·63
	Oxford	44	26	34·6	−8·1	1	0·03	−0·43
5. ENGLAND, S.	London	43	30	35·1	−7·2	3	0·15	−0·32
	Marlborough ℳ	44	24	33·4	−9·3	2	0·03	−0·59
	Strathfield Turgiss ℳ	43	23	33·7	−9·1	2	0·06	−0·43
	Dover	43	30	35·9	−6·7	5	0·25	−0·61
	Hastings	41	27	34·8	−8·2	3	0·29	−0·35
	Hurst Castle	43	27	34·6	−9·4	1	0·01	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	43	24	35·1	−6·6	2	0·30	?
	Glasgow	42	28	35·0	−6·3	1	0·02	−0·94
	Ardrossan	45	28	36·7	−5·0	2	0·03	−0·88
	Silloth	42	21	31·4	−10·5	1	0·08	−0·59
	Douglas (Isle of Man)	47	24	34·8	−8·3	3	0·19	?
7. ENGLAND, N.W.	Stonyhurst	42	25	34·9	−7·2	2	0·20	−0·92
	Manchester	42	23	33·0	−8·9	1	0·25	−0·53
	Liverpool Observatory (Bidston)	43	30	36·4	−6·3	2	0·13	−0·38
	Holyhead	48	33	40·2	−3·9	4	0·30	−0·52
8. ENGLAND, S.W.	Pembroke	46	27	38·2	−6·8	6	0·54	−0·36
	Falmouth	47	31	38·6	−8·3	6	0·91	−0·17
	Plymouth	44	26	35·6	−10·3	3	0·22	−0·60
9. IRELAND, N.	Mullaghmore	46	31	39·4	−3·3	?5	?0·43	?
	Dunfanaghy	45	31	38·5	−3·9	6	1·07	?
	Greencastle	48	27	37·6	−4·7	6	0·91	−0·07
	Armagh	43	20	32·1	−10·8	4	0·31	−0·30
	Donaghadee	45	30	37·8	−4·9	3	0·19	?
10. IRELAND, S.	Kingstown	43	30	36·7	−6·8	3	0·06	−0·53
	Parsonstown	43	20	32·5	−10·7	4	0·09	−0·55
	Roche's Point	47	32	38·2	−6·1	2	0·36	−0·84
	Valencia	49	29	39·4	−4·8	6	0·70	−0·56
SCOTLAND, N.	Sumburgh Head	46	28	34·8	−6·5	7	0·85	+0·18
	Stornoway	46	28	37·2	−4·5	7	0·44	?
	Thurso	44	29	36·9	−4·4	7	0·97	+0·16
	Wick	43	29	35·4	−5·7	6	0·65	−0·09
——	Scilly (St. Mary's)	49	34	43·2	−4·3	7	0·82	−0·13
	Jersey (Noirmont)	*–	–	–	–	–	–	–

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

* Returns incomplete; cable to Jersey broken down.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending December 9, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, December 3.

Weather fair in the W. and S.W. as well as in some parts of the N. of England and the N. of Scandinavia. Showers in the E., and drizzle in the S.E. Slight rain in E. and N. during day.

Temperature fallen, except in the S. of Sweden and over the Skager Rack. Varying from 45° at Scilly, to 32° at Plymouth, and 33° at Wick. Maxima about 40° to 45°, and the minima at the northern inland stations between 28° and 30°.

Wind north-easterly on our coasts, more northerly on the continent, light to fresh in force. Little change during the day, excepting the appearance of southerly airs in the Hebrides at 6 P.M.

Sea slight to smooth.

Barometer rising generally. Readings highest over Sweden, but moderately high and very uniform on our western and northern coasts, lowest over the Mediterranean. Slight fall at Stornoway in the evening.

Wednesday, December 4.

Weather fine over the greater part of the United Kingdom, and the N. of Scandinavia, cloudy or dull elsewhere. Rain falling in N. Germany and the Netherlands, fog and mist in several places. Some rain falling subsequently, except in the S.E. and S.

Temperature risen a little over the N. of Scotland and N. Germany, fallen in most other districts. Varying from 27° to 29° in the S. and E. of Scotland, but rather higher in other parts of our islands.

Wind southerly to westerly in the N. and N.W., but still northerly elsewhere; moderate in force generally, but fresh in the Straits of Dover.

Sea slight or smooth, except off Gris Nez and the Scaw.

Barometer rising except in Scandinavia and the N. of these islands. Areas of high pressure shown over our south-western stations and Sweden, of low pressure off our northern coasts and over the Mediterranean. Fall of barometer becoming general in evening.

Thursday, December 5.

Weather dull, cloudy, foggy, and misty, with rain in the N.E. of France; finer generally in the N.W. at evening, but snow falling at Aberdeen. Rain, hail, or snow showers occurring in most places during some part of the day.

Temperature fallen in the E. and N. of these islands, risen in the W. and at most of the continental stations. Varying from 48° at Scilly, to 35° over the south-eastern counties, and 34° in the Shetlands. Minima between 28° and 32° at the inland stations.

Wind north-westerly to northerly on all coasts, light to fresh in force.

Sea rough in the Straits of Dover.

Barometer rising in the W. and S. of France, falling elsewhere, slightly over these islands, quickly over Scandinavia. Highest in the W. and lowest in the E. Still decreasing in the S. and S.E. in the evening, but increasing in the N.

Friday, December 6.

Weather fine over the southern and central parts of England, the Channel, and the S. of Ireland; cloudy or dull elsewhere, with rain in the N. of Scotland. Showers of snow, hail, or rain falling very generally during the succeeding day or night.

Temperature fallen several degrees over these islands and the N. of France; uniformly low over western Europe.

Wind westerly in the N., north-westerly in the E., and drawing into N. and N.E. in the S. and S.W.; blowing freshly over the Channel and Netherlands at 8 A.M., and strongly from W. and N.W. on our western coasts in the evening.

Sea rough off Cape Gris Nez and Christiansund.

Barometer falling everywhere—most in the N. Readings highest in the S.W., lowest over the Baltic. Large depression advancing towards Norway, and small one subsequently passing southward down our western coasts.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, December 7. *Weather* fine at many of our western and northern stations, as well as in the S.W. of Norway, cloudy or dull in most other places. Snow falling in the north-eastern parts of our islands and France; rain in the W. of France. Snow or rain fell generally during the day—heavily at Scarborough. *Temperature* risen several degrees over the United Kingdom, fallen over Scandinavia; varying from 46° at Scilly to 33° at Sumburgh Head and Yarmouth, and 25° at Skudesnaes. Minima 27° to 29° in the N. of England. *Wind* northerly generally, but drawing into S.W. and W. in the southern parts of France, and variable in the Netherlands; fresh in force in the W., and blowing a gale at Scilly later in the day. *Sea* rough in the Irish Sea and off Scilly. *Barometer* falling except in the N. of Scotland—most over central and southern England. Readings highest in the W., lowest over the S. of Scandinavia. Small subsidiary disturbance over the Channel. Pressure giving way everywhere.
		Sunday, December 8. *Weather* fine locally at a few stations and in the W. and S. of Scandinavia, variable elsewhere, with snow in the E. and N., hail and rain in the S.W. Snow and rain in the E. and S. during the day. *Temperature* lower than on the 7th, except over the Baltic; varying over these islands from 44° in the S.W., to 29° at Nottingham and 30° at Stornoway. Minima in following night 22° at Nottingham and low generally. *Wind* southerly over N. Germany and the Baltic, northerly on most other coasts, fresh in force in the W., and blowing a gale at Scilly. *Sea* rough in the S.W. and N.E. *Barometer* falling generally at 8 A.M., readings highest in the W., and large area of low pressure lying to the eastward and south-eastward of these islands. Mercury rising again in the evening.
		Monday, December 9. *Weather* fair in many parts of these islands and the W. of France, but dull and snowy in the E. and N.E.; hail in the S.W. Hail and snow fell in the N. and N.E., and rain and snow in the S.W. during the day. *Temperature* risen a little in the N.W., changed irregularly to the eastward of the North Sea; fallen elsewhere. Uniformly low over western Europe. As low as 32° again at Toulon. Minima several degrees below freezing point at the inland stations, and as low as 18° at Nottingham and Cambridge. *Wind* light to fresh from the northward over Great Britain and France, but southerly in North Germany and south-easterly in Scandinavia. Little change during the day. *Sea* rough in the N.W. and S.W. *Barometer* rising, except at Valentia. Readings high off our S.W. coasts and over the Baltic, low over the southern portion of the North Sea. Separate depression appearing over the western part of the Channel later in the day.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ➔ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 705.—150.—12/78.]

WEEKLY WEATHER REPORT.

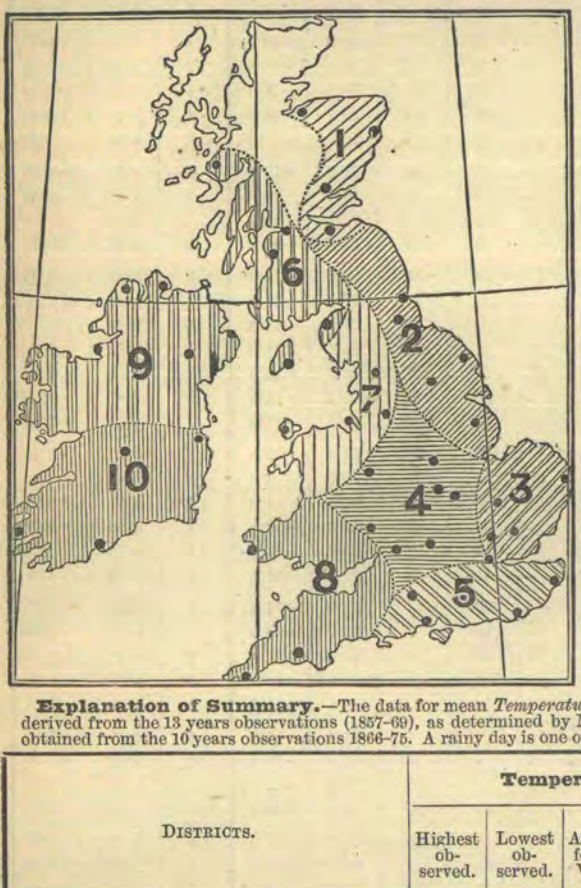
ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. I. No. 45.] WEEK ENDING MONDAY, DECEMBER 16, 1878. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.



Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Falmouth, Plymouth.
9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	36	13	28	12 below.	3	3	1 less.
	2. ENGLAND, NORTH-EAST	40	3	25	15 below.	2	2	4 less.
	3. ENGLAND, EAST	37	13	27	14 below.	2	2	4 less.
	4. MIDLAND COUNTIES	39	14	26	15 below.	1	1	5 less.
	5. ENGLAND, SOUTH	41	14	29	13 below.	3	3	3 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	40	9	28	13 below.	2	4	4 less.
	7. ENGLAND, NORTH-WEST	42	13	29	14 below.	3	2	6 less.
	8. ENGLAND, SOUTH-WEST	44	19	33	13 below.	3	12	3 more.
	9. IRELAND, NORTH	40	15	30	12 below.	4	5	2 less.
	10. IRELAND, SOUTH	47	11	31	12 below.	4	4	5 less.

General Remarks.

Weather tolerably fair in the western and northern districts, but with occasional showers; very dull and foggy in the south-east and east. Temperature a great deal below the mean for the season, the deficit ranging from twelve degrees in "Scotland, E." and Ireland to fifteen degrees in "England, N.E." and the Midland Counties. The maximum readings seldom reaching 40° except at the south-western stations, and frequently below 30° over the Midland and Northern Counties of England, where, also, the minima were often below 20°, the lowest of all being 3° and 9° at Durham and Silloth respectively on the morning of the 14th.

Rainfall rather more than the mean in "England, S.W.," but less in all other districts, the amounts being composed largely of hail and snow.

Wind very variable; chiefly north-easterly or easterly in the early part of the week but shifting to N.W. or W. at its close, and generally light or moderate in force.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	35	19	28·5	−11·7	5	0·27	−0·20
	Aberdeen	36	15	27·3	−12·2	4	0·67	0·00
	Glenalmond	36	13	27·6	−12·2	1	0·07	?
	Leith	36	15	28·9	−10·8	2	0·28	−0·09
2. ENGLAND, N.E.	Shields	40	10	26·2	−13·5	4	0·32	−0·31
	Durham	35	3	23·5	−16·3	2	0·43	−0·35
	Scarborough	39	17	28·0	−11·6	2	0·17	−0·58
	York	35	13	23·7	−16·2	1	0·05	−0·55
	Kelstern (Lincolnshire) ℔	34	12	22·7	−17·0	3	0·21	−0·20
3. ENGLAND, E.	Yarmouth	37	20	28·2	−12·1	3	0·17	−0·60
	Cambridge	35	16	25·9	−14·6	1	0·04	−0·42
	Audley End (Saffron Walden) ℔	36	13	25·6	−15·1	3	0·08	?
	Rothamsted	36	16	26·7	−14·0	2	0·48	−0·07
4. MIDLAND COUNTIES	Nottingham	34	15	26·1	−14·4	2	0·04	−0·53
	Loughborough	38	15	27·1	−13·5	1	0·01	?
	Leicester	34	18	26·4	−14·2	2	0·03	?
	Shrewsbury ℔	37	14	24·1	−17·6	1	0·02	?
	Hereford ℔	39	17	26·5	−15·3	2	0·18	−0·49
	Cirencester	36	18	26·4	−15·2	0	—	−0·71
	Oxford	36	17	27·2	−13·9	2	0·04	−0·43
5. ENGLAND, S.	London	36	22	29·0	−12·0	3	0·06	−0·43
	Marlborough ℔	38	20	27·2	−14·6	0	—	−0·64
	Strathfield Turgiss ℔	35	14	26·5	−15·3	1	0·17	−0·33
	Dover	39	25	31·2	− 9·8	4	0·49	−0·31
	Hastings	39	21	30·2	−11·3	3	0·73	+0·10
	Hurst Castle	41	22	31·2	−12·0	5	0·15	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	36	19	28·3	−12·8	1	0·48	?
	Glasgow	35	17	26·7	−13·8	1	0·45	−0·60
	Ardrossan	40	22	30·8	−10·3	3	0·17	−0·72
	Silloth	34	9	22·4	−17·9	3	0·68	−0·00
	Douglas (Isle of Man)	40	23	32·0	−10·0	1	0·03	?
7. ENGLAND, N.W.	Stonyhurst	36	14	25·6	−15·8	3	0·11	−1·00
	Manchester	34	13	25·1	−16·0	2	0·16	−0·59
	Liverpool Observatory (Bidston)	37	23	29·4	−12·6	2	0·33	−0·10
	Holyhead	42	26	33·9	− 9·5	3	0·24	−0·68
8. ENGLAND, S.W.	Pembroke	44	? 24	34·2	−10·0	4	1·01	+0·11
	Falmouth	43	24	34·0	−12·2	4	1·75	+0·80
	Plymouth	42	19	30·1	−15·2	2	0·86	+0·06
9. IRELAND, N.	Mullaghmore	39	25	31·9	−10·1	4	0·57	?
	Dunfanaghy	38	23	31·9	− 9·9	3	0·52	?
	Greencastle	40	19	29·3	−12·4	7	1·08	+0·20
	Armagh	33	15	25·1	−17·3	1	0·04	−0·59
	Donaghadee	39	26	32·2	−10·0	3	0·13	?
10. IRELAND, S.	Dublin *	36	18	28·9	−14·0	4	0·52	−0·02
	Kingstown	38	25	32·0	−11·0	4	0·36	−0·28
	Parsonstown	34	11	24·4	−18·2	2	0·05	−0·65
	Roche's Point	42	26	32·9	−10·9	4	0·49	−0·77
	Valencia	47	26	35·5	− 8·1	6	0·46	−0·94
SCOTLAND, N.	Sumburgh Head	39	24	32·8	− 8·4	7	0·41	−0·34
	Stornoway	38	22	32·0	− 9·5	4	0·44	?
	Thurso	40	19	33·4	− 7·6	7	1·26	+0·52
	Wick	39	19	29·3	−11·3	7	0·53	−0·17
——	Scilly (St. Mary's)	48	32	39·6	− 7·1	6	1·37	+0·46
	Jersey (Noirmont)	45	27	34·7	−11·0	6	0·87	+0·15

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "℔" are in connection with the Meteorological Society.

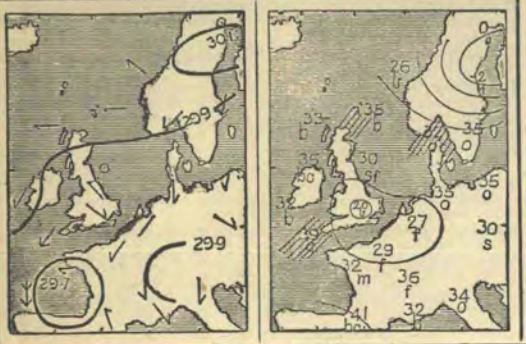
* Dublin has been added to the list of stations for Ireland, S.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending December 16, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, December 10.

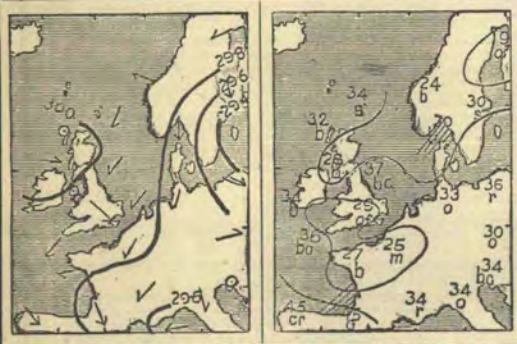
Weather fair at several of the western and northern stations, but dense fog in many places, snow in the N.E. of Scotland and England, as well as at Pembroke and Rochefort. Snow in the E. and W. during the day.

Temperature risen in the S. of Scandinavia and S. of France, fallen elsewhere. Low over central England and down to zero in the N. of the Gulf of Bothnia. Minima below 20° at Nottingham and Cambridge, and below 30°, except at Scilly, Stornoway, and Leith.

Wind south-easterly to easterly over the Bay of Biscay, and north-easterly on most of our own coasts; but in central and eastern England north-westerly breezes reported locally, with south-westerly wind at Brussels and south-easterly at the Helder.

Sea rather rough off Wick and Scilly.

Barometer falling over the W. of France, rising elsewhere. Well marked depressions shown over the Bay of Biscay and Germany, the latter advancing to the Baltic at night, and the former to the S.W. of France.



Wednesday, December 11.

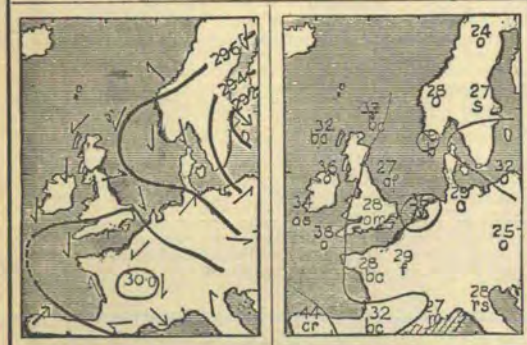
Weather very fine at our western and northern stations, and on the eastern shores of the North Sea; cloudy and foggy in the E. and S.E. of these Islands and the N.E. of France. Snow showers general during the day.

Temperature risen in Holland and over the greater part of England; fallen elsewhere—several degrees in the S. of Scandinavia and N. of Scotland. Minima in following night 13° at York and between 20° and 25° at most of the inland and northern stations.

Wind northerly over Scandinavia, and north-easterly at our own and the French stations. Light in force in our neighbourhood, but blowing a gale in the Baltic. Wind more northerly in evening.

Sea rough at Biarritz and in the Skager Rack.

Barometer high, and rising over the British Isles and W. of France; low and falling quickly over Norway and Sweden and at Toulon; the southern depression noticed yesterday having reached the Mediterranean. Fall of barometer over the North Sea extending to Great Britain during the morning.



Thursday, December 12.

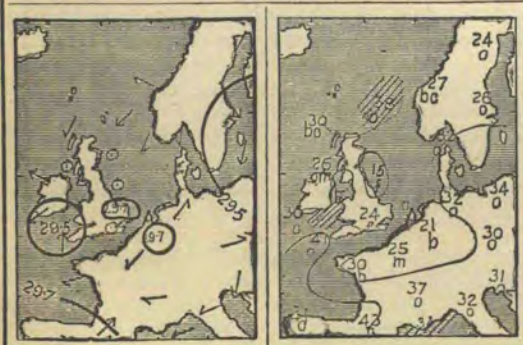
Weather gloomy and foggy over the central and inland parts of England and the E. of France; fine generally in the W. and N., but snow falling at Valentia and over the Baltic. Snow and hail in the W. and extreme N. later in the day.

Temperature risen fast in N. and slightly in W. and S., but fallen briskly in E. and S.E. Readings varying from 38° at Scilly to 17° at York. Minima 13° at Shields, and below 20° at other stations in the N.E. of England and Scotland.

Wind light and very variable over Western Europe, but northerly gale still blowing in the Baltic. Wind subsequently fresh from S.E. in the Bay of Biscay, but light on our coasts all day.

Sea nearly smooth.

Barometer risen somewhat in the E. and S. of France; fallen rather briskly elsewhere. Highest at Lyons, lowest at Stockholm. Pressure giving way during day, and disturbance appearing in W.



Friday, December 13.

Weather dry (except in the extreme S. of France) and moderately fine at many stations, but a great deal of fog and mist still found over England. Snow and rain falling subsequently over Scotland, Ireland, and France.

Temperature lower than on 12th over nearly the whole of Great Britain and the N.E. of France, higher in the south-western districts, varying from 41° at Scilly to 15° at Shields. Minima 10° at Shields, and between 15° and 20° at our other north-eastern stations, and at Oxford and Cambridge.

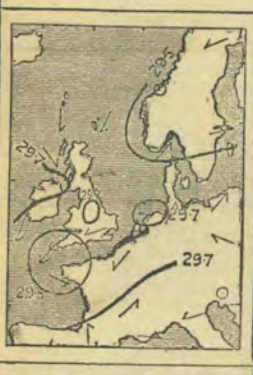
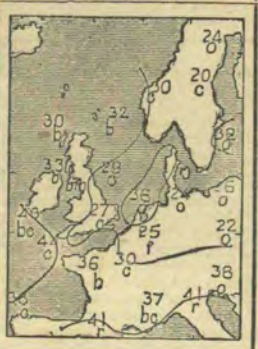
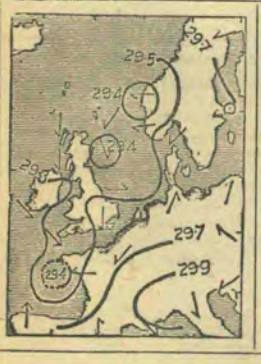
Wind very light and variable generally, but fresh from the southward in the S.W. of England, moderate from N. in the S. of Ireland. Moderate S.E. gale at Scilly in the evening.

Sea rough in the S.W. and near the Shetlands.

Barometer falling except in Scandinavia, briskly at our south-western stations, where a well-formed depression had appeared. Pressure giving way in the S.W. all day, but increasing elsewhere.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		**Saturday, December 14.** *Weather* locally clear at a few stations, but cloudy generally, with fog in many places. Snow at Aberdeen, the Scaw, Hurst Castle, and in the N.E. of France. Slight snow subsequently falling in N., W., and S., and heavy falls in a few localities. *Temperature* risen in N. of Scotland and over France, fallen England and Ireland; varying from 40° at Scilly to 15° at Shields. Thermometer beginning to rise at night, and minima higher than on preceding days. *Wind* westerly to south-westerly over France, easterly over southern England, and very light and variable in other parts of these Islands; strong N.E. gale at Scilly. Wind afterwards backing to northward at the southern stations. *Sea* rough at the mouth of the Channel. *Barometer* falling on the continent and our S.E. coast, rising slightly in the N., and briskly in the W. Depression passing away south-eastward, and apparently filling up. At 6 P.M. barometer falling in E., rising in W.
		**Sunday, December 15.** *Weather* fine in the Shetlands, Hebrides, some parts of Ireland, and the N.W. of France, cloudy elsewhere. Snow falling in Caithness. Snow showers occurring in many places, except on our E. coast, later in the day. *Temperature* falling in the N. of Scotland and W. of France, rising briskly elsewhere. Frost breaking up over England during the day. *Wind* north-westerly generally, but drawing into S.W. and S. to the eastward of the North Sea. Light or moderate except in the S.W. Moderate westerly gale reported at Scilly at 6 P.M., and a temporary breeze from S.W. felt over England in course of day. *Sea* rough in the S.W., moderate to slight on our other coasts. *Barometer* rising slightly in the S., falling elsewhere. Depression shown near the Shetlands, and subsidiary disturbance in the W., the latter crossing England during the day. Mercury falling everywhere at 6 P.M. Readings highest over Spain and the Bay of Biscay.
		**Monday, December 16.** *Weather* very variable, clear at many northern and western stations, cloudy and very foggy in England; rain in France, snow at Brussels. Dense black fog in London during the day. Slight snow and cold rain subsequently. *Temperature* fallen in the N.E. and N.W., risen elsewhere, varying from 45° at Scilly to 22° at Ardrossan. Minima in following night 18° at Nottingham and Yarmouth, and between 20° and 25° at the English inland stations. *Wind* very variable in direction, and light in force over the British Isles. Little change during day. *Sea* nearly smooth. *Barometer* falling, except in Sweden, slowly over these Islands, briskly over the Bay of Biscay. Large area of low pressure lying over the North Sea, the United Kingdom, and N.W. of France, having three minima in it.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 705.—150.—12/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. I. No. 46.] WEEK ENDING MONDAY, DECEMBER 23, 1878. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Falmouth, Plymouth.
9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	39	17	30	10 below.	5	6	2 more.
	2. ENGLAND, NORTH-EAST	39	14	28	12 below.	6	5	2 less.
	3. ENGLAND, EAST	40	18	29	12 below.	2	1	5 less.
	4. MIDLAND COUNTIES	48	14	29	12 below.	3	3	3 less.
	5. ENGLAND, SOUTH	45	15	32	10 below.	2	2	5 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	42	12	30	11 below.	4	6	6 less.
	7. ENGLAND, NORTH-WEST	43	13	31	11 below.	5	7	1 less.
	8. ENGLAND, SOUTH-WEST	45	25	36	9 below.	5	5	4 less.
	9. IRELAND, NORTH	42	18	33	9 below.	6	11	4 more.
	10. IRELAND, SOUTH	46	15	31	12 below.	3	3	6 less.

General Remarks.

Weather again very cold, but not quite so severe as during last week; sky variably clouded, and frequent showers of snow and hail in all but the southern districts. Thunder and lightning in many places on the night of Wednesday the 18th. Temperature considerably below the mean; the maximum readings seldom reaching 40° except in the extreme south-west of England. Severe night frosts in most districts, the sheltered thermometer falling below 20° on several occasions and sinking to 12° at Silloth and Glasgow on the 17th and 20th respectively.

Rainfall more than the mean in "Scotland, E." and "Ireland, N.," but less in all other districts. The fall was usually in the form of snow, hail, or sleet showers.

Wind generally northerly to north-westerly in direction and moderate in force, but backing to W. on the night of the 17th and blowing strongly from that quarter in the western districts on the 18th.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	38	22	29·7	−10·5	4	0·58	+0·11
	Aberdeen	39	17	30·8	− 8·7	7	1·18	+0·51
	Glenalmond	38	18	28·5	−11·3	2	0·16	?
	Leith	38	20	30·1	− 9·6	5	0·26	−0·11
2. ENGLAND, N.E.	Shields	39	20	29·0	−10·7	6	0·78	+0·15
	Durham	38	14	27·9	−11·9	6	0·45	−0·33
	Scarborough	39	22	30·7	− 8·9	6	0·65	−0·10
	York	37	17	27·8	−12·1	5	0·27	−0·33
	Kelstern (Lincolnshire) ℳ	34	15	24·9	−14·8	5	0·14	−0·27
3. ENGLAND, E.	Yarmouth	35	18	27·0	−13·3	1	0·07	−0·70
	Cambridge	40	20	30·0	−10·5	2	0·08	−0·38
	Audley End (Saffron Walden) ℳ	38	22	29·7	−11·0	1	0·04	?
	Rothamsted	38	19	29·7	−11·0	2	0·11	−0·44
4. MIDLAND COUNTIES	Nottingham	38	14	26·4	−14·1	3	0·20	−0·37
	Loughborough	43	18	30·0	−10·6	2	0·24	?
	Leicester	39	19	29·8	−10·8	3	0·25	?
	Shrewsbury ℳ	37	15	29·1	−12·6	6	0·43	?
	Hereford ℳ	48	18	30·8	−11·0	4	0·55	−0·12
	Cirencester	41	14	29·4	−12·2	1	0·17	−0·54
	Oxford	39	20	30·2	−10·9	2	0·19	−0·28
5. ENGLAND, S.	London	41	17	30·6	−10·4	2	0·12	−0·37
	Marlborough ℳ	40	20	29·8	−12·0	1	0·05	−0·59
	Strathfield Turgiss ℳ	40	15	28·9	−12·9	1	0·15	−0·35
	Dover	41	26	32·6	− 8·4	2	0·30	−0·50
	Hastings	43	25	31·6	− 9·9	3	0·21	−0·42
	Hurst Castle	45	25	35·5	− 7·7	2	0·06	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	39	20	30·5	−10·6	?6	0·81	?
	Glasgow	39	12	28·9	−11·6	2	0·17	−0·88
	Ardrossan	41	22	32·7	− 8·4	3	0·38	−0·51
	Silloth	39	12	26·1	−14·2	2	0·41	−0·27
	Douglas (Isle of Man)	42	22	32·8	− 9·6	5	0·98	?
7. ENGLAND, N.W.	Stonyhurst	38	13	27·0	−14·4	4	0·55	−0·56
	Manchester	36	13	25·9	−15·2	5	0·93	+0·18
	Liverpool Observatory (Bidston)	39	24	33·1	− 8·9	5	0·53	+0·10
	Holyhead	43	33	38·3	− 5·1	7	0·87	−0·05
8. ENGLAND, S.W.	Pembroke	45	31	38·0	− 6·2	5	0·18	−0·72
	Falmouth	44	31	37·5	− 8·7	5	0·77	−0·18
	Plymouth	42	25	33·1	−12·2	4	0·40	−0·40
9. IRELAND, N.	Mullaghmore	42	25	35·2	− 6·8	6	0·93	?
	Dunfanaghy	40	30	35·2	− 6·6	6	1·18	?
	Greencastle	40	22	32·9	− 8·8	6	1·93	+1·05
	Armagh	35	18	28·2	−14·2	5	0·28	−0·35
	Donaghadee	41	25	32·6	− 9·6	6	0·98	?
10. IRELAND, S.	Dublin	37	16	29·0	−13·9	3	0·19	−0·35
	Kingstown	38	26	31·3	−11·7	2	0·10	−0·54
	Parsonstown	37	15	26·8	−15·8	1	0·02	−0·68
	Roche's Point	40	26	34·1	− 9·7	3	0·11	−1·15
	Valentia	46	26	35·5	− 8·1	6	1·23	−0·17
SCOTLAND, N.	Sumburgh Head	38	22	31·7	− 9·5	7	0·42	−0·33
	Stornoway	37	26	32·0	− 9·5	6	1·04	?
	Thurso	39	23	34·0	− 7·0	7	1·29	+0·55
	Wick	39	22	32·0	− 8·6	7	1·40	+0·70
——	Scilly (St. Mary's)	48	36	41·8	− 4·9	6	0·66	−0·25
	Jersey (Noirmont)	46	[34	40·0	− 5·7	6	1·19	+0·47

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending December 23, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, December 17.

Weather fine over the greater part of these Islands, but dull and hazy over France and the S.E. of England. Snow at Wick. Snow and hail showers general during day, except in the S. and S.E. of England.

Temperature lower in the S. and W., and higher in the N. and N.W. than on the 16th; varying from 40° at Scilly to 21° at Nottingham. Over England the thermometer appears to have risen during the succeeding 24 hours.

Wind light or moderate in force at all stations excepting Scilly, generally north-westerly to northerly, but backing to S.W. in the N.W. and freshening during the day.

Sea nearly smooth, except off Scilly.

Barometer falling slightly at our northern and eastern stations, and briskly over France, rising in the S.W. Rapid fall subsequently taking place at Stornoway, and depression advancing from N.W. towards the W. of Scotland.

Wednesday, December 18.

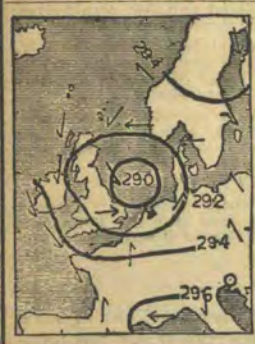
Weather unsettled, sky clear in the extreme N.E., but cloudy generally elsewhere, with snow in several places. Showers of snow, hail, and sleet during the day, and thunder and lightning general in the N.W. and N. at night.

Temperature fallen in the N.E. of Scotland, risen elsewhere,—many degrees in the W. and S. Readings varying from 47° at Scilly to 22° at Nairn. Minima in following night not very low, except at Aberdeen and Nairn.

Wind easterly in the far N., north-westerly to westerly in the W., south-westerly in the S.E., and southerly in Denmark, but northerly over the Baltic. Fresh to strong at our western stations, and blowing a gale at Stornoway and Mullaghmore. Strong and squally all day, except on our E. coast.

Sea rough N.W., W., and S.

Barometer falling, except over France and N. Germany,—rapidly in Scotland, but beginning to recover in the N. of Scotland, well marked depression over the Clyde. Disturbance moving south-eastward, and barometer rising in N. and N.W. during the afternoon.



Thursday, December 19.

Weather still unsettled; sky cloudy, with snow, hail, or rain showers at several stations; clearer towards evening.

Temperature much higher in the N. and lower elsewhere than on 18th, readings varying from 43° at Scilly and 37° at Thurso to 29° at York. Temperature uniform over Eastern England. Minima below 20° in the N.E. of England.

Wind fresh in force, from N.E. in the N., and N.W. in the W., from W. in the S.E., from S. in Denmark, and from E. in Norway; light north-westerly on our eastern coast. Little change during day.

Sea high at Aberdeen, rough in the N., W., and S.

Barometer falling over France, the S.E. of England, and on the eastern shores of the North Sea; rising elsewhere. Disturbance now over the North Sea, and moving south-eastward to North Germany during the day.

Friday, December 20.

Weather fair and dry over Great Britain and the E. of Ireland, but snow falling at our extreme north-western stations; rain at Valentia and in the S. of France. Snow and hail showers in the S.W., W., and N.

Temperature fallen in most places—rapidly over Central England; varying from 38° at Scilly to 18° at Nottingham and York. Minima in following night, 14° at Nottingham, 17° at York, and 19° at Yarmouth.

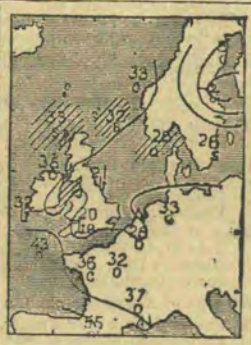
Wind strong from N.N.E. in the Hebrides, but light in force elsewhere; generally from N. to N.W. on our coasts, and from E. in France.

Sea rough in the Minch.

Barometer falling in the W. of France, the S.W. of Ireland, and over the Baltic; rising elsewhere. Readings uniform over these Islands, but irregular in other parts of Western Europe. Brisk rise taking place in the W. at 6 P.M., and fall in S.W. of France ceasing.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, December 21. *Weather* clear at many of the more northern and western stations, cloudy or dull in the S.E., with snow showers at Thurso, Scarborough, and Pembroke. Showers of snow or hail in all but the south-eastern districts in the day. *Temperature* changed irregularly except in Scandinavia, where it had fallen, varying over the British Isles from 42° at Scilly to 15° at Nottingham. Minima about 25° at the inland stations. *Wind* northerly to north-westerly on most of our own and the French coasts, but westerly in Denmark, and southerly in the Baltic. Wind increasing in force in the N. in the afternoon and blowing a slight gale in some places. *Sea* rough in the N. and in the Skager Rack. *Barometer* rising, except in the Shetlands and W. of Norway. Readings highest in the S.W. and shallow depressions shown over Scandinavia, the North Sea, and Central France; pressure giving way briskly in the N. and E. in the evening.
		Sunday, December 22. *Weather* still unsettled and the amount of cloud very variable. Snow falling in some places, and snow showers occurring subsequently at nearly all but our eastern stations. *Temperature* lower than on 21st, except in the N.E. of England. Readings varying from 45° at Scilly, to 23° at York. Minima in following night 20°, or below in E. and N.E. *Wind* fresh to strong from N. in Scotland, from W. on our other coasts, and from S.W. in N. Germany. Veering north-westward over England and Ireland during day. *Sea* rough in the N. and S.W. *Barometer* falling at our southern stations and on the eastern shores of the North Sea; rising in the N. and N.W. Disturbance over S. Norway. Not much change in later reports.
		**Monday, December 23.** *Weather* fair over the greater part of these Islands, but cloudy and snowy in the N. of Scotland and dull over France. Snow falling later in the day in the N.W. and N.E. *Temperature* fallen fast over England, Ireland, and the N.W. of France; risen somewhat elsewhere. Readings varying from 43° at Scilly to 18° at York. Minima in following night 14° at Nottingham and 15° at Oxford. *Wind* northerly to north-westerly on our coasts, south-easterly to easterly over France, fresh at some of the northern and western stations, light or moderate elsewhere. Little change during day. *Sea* rather rough in the N. and N.W. *Barometer* falling over France, rising elsewhere. Pressure greatest off our S.W. coasts, least over the Baltic, but separate depression over the Bay of Biscay. Barometer still rising in the afternoon.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 705.—150.—12/78.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. I. No. 47.] WEEK ENDING MONDAY, DECEMBER 30, 1878. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Falmouth, Plymouth.
9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations (1857-69), as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for the Week.	Rainfall. Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for the Week.
		Degrees Fahr.	Degrees Fahr.	Degrees Fahr.	Degrees Fahr.		In tenths of an inch.	In tenths of an inch.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	50	11	31	8 below.	5	10	2 more.
	2. ENGLAND, NORTH-EAST	52	11	32	6 below.	5	8	3 more.
	3. ENGLAND, EAST	56	9	36	4 below.	6	9	4 more.
	4. MIDLAND COUNTIES	59	5	33	7 below.	6	13	7 more.
	5. ENGLAND, SOUTH	56	8	39	2 below.	6	10	3 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	50	13	33	7 below.	5	13	2 more.
	7. ENGLAND, NORTH-WEST	52	7	35	6 below.	5	11	3 more.
	8. ENGLAND, SOUTH-WEST	54	26	43	2 below.	7	22	12 more.
	9. IRELAND, NORTH	53	6	34	7 below.	5	9	3 more.
	10. IRELAND, SOUTH	59	14	38	5 below.	6	14	3 more.

General Remarks.

Weather very unsettled; much snow at the commencement of the week, and considerable quantities of rain towards its close. Temperature showing great changes; minima as low as 5° to 9° over England and Ireland on the morning of Wednesday the 25th, but maxima at the close of the week exceeding 50° in all districts and reaching 59° at Roche's Point and Loughborough on the 29th and 30th respectively.

Rainfall more than the mean in all districts, the excess being inconsiderable in most parts, but amounting to an inch and two tenths in the south-west of England. Heavy falls were reported at nearly all our western and northern stations on the 28th.

Wind light and variable on the 24th; south-easterly breezes setting in on the following day, and strong south-westerly to southerly winds at the close of the week.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	43	11	29·3	− 9·8	3	0·20	−0·30
	Aberdeen	43	17	31·7	− 6·6	4	1·34	+0·69
	Glenalmond	42	21	30·5	− 8·2	4	1·51	?
	Leith	50	18	32·5	− 6·2	6	0·76	+0·34
2. ENGLAND, N.E.	Shields	50	18	33·3	− 5·3	6	0·58	+0·04
	Durham	48	11	31·3	− 7·5	5	1·10	+0·47
	Scarborough	52	18	34·5	− 4·0	4	0·71	+0·11
	York	50	11	30·9	− 7·9	5	0·65	+0·13
	Kelstern (Lincolnshire) ℳ	50	13	31·7	− 6·9	5	1·05	+0·64
3. ENGLAND, E.	Yarmouth	53	19	34·7	− 4·1	5	0·89	+0·20
	Cambridge	56	12	35·5	− 3·7	6	0·95	+0·54
	Audley End (Saffron Walden) ℳ	54	10	36·2	− 3·2	5	0·71	?
	Rothamsted	54	9	35·4	− 4·3	6	0·98	+0·34
4. MIDLAND COUNTIES	Nottingham	51	6	30·8	− 8·5	6	1·69	+1·16
	Loughborough	59	6	32·5	− 7·0	5	1·44	?
	Leicester	52	7	32·5	− 7·0	6	1·20	?
	Shrewsbury ℳ	51	7	31·1	− 9·5	6	0·87	?
	Hereford ℳ	52	5	32·7	− 8·2	6	1·18	+0·46
	Cirencester	52	12	36·3	− 4·4	6	1·32	+0·50
	Oxford	53	6	33·6	− 6·5	5	1·02	+0·48
5. ENGLAND, S.	London	56	11	38·3	− 1·6	6	0·62	+0·08
	Marlborough ℳ	58	14	36·8	− 4·0	6	1·58	+0·82
	Strathfield Turgiss ℳ	55	8	35·8	− 4·9	6	0·95	+0·34
	Dover	50	26	39·8	+ 0·1	6	0·75	−0·05
	Hastings	49	23	39·3	− 0·9	6	1·09	+0·39
	Hurst Castle	49	24	41·1	− 0·7	6	1·03	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	50	20	35·0	− 4·9	4	1·59	?
	Glasgow	46	14	31·6	− 7·6	4	1·05	−0·08
	Ardrossan	50	22	34·8	− 5·0	5	1·08	+0·04
	Silloth	49	13	30·3	− 9·1	5	1·29	+0·48
	Douglas (Isle of Man)	50	13	34·5	− 6·9	5	1·55	?
7. ENGLAND, N.W.	Stonyhurst	48	13	33·0	− 7·1	5	0·95	−0·12
	Manchester	50	7	31·4	− 8·1	6	1·13	+0·38
	Liverpool Observatory (Bidston)	51	13	34·6	− 6·2	4	0·72	+0·22
	Holyhead	52	29	39·0	− 3·4	5	1·55	+0·61
8. ENGLAND, S.W.	Pembroke	51	30	40·5	− 2·5	7	2·16	+1·12
	Falmouth	54	33	45·2	− 0·0	7	2·39	+1·41
	Plymouth	54	26	41·9	− 2·2	7	2·00	+1·00
9. IRELAND, N.	Mullaghmore	53	25	37·5	− 4·7	4	0·88	?
	Dunfanaghy	50	26	35·2	− 5·8	3	0·67	?
	Greencastle	45	12	31·3	− 9·4	4	1·04	+0·12
	Armagh	49	6	32·4	− 8·8	6	1·07	+0·39
	Donaghadee	48	21	35·4	− 5·8	6	0·88	?
10. IRELAND, S.	Dublin	53	14	34·1	− 7·9	6	0·74	+0·16
	Kingstown	53	22	36·7	− 5·4	6	0·86	+0·18
	Parsonstown							
	Roche's Point	59	28	40·0	− 3·1	7	2·20	+0·80
	Valentia	55	27	41·4	− 1·9	6	1·66	+0·09
SCOTLAND, N.	Sumburgh Head	43	26	35·1	− 5·0	7	1·44	+0·72
	Stornoway	40	22	32·2	− 8·2	5	1·32	?
	Thurso	41	17	31·1	− 8·7	4	1·40	+0·73
	Wick	43	20	31·0	− 8·5	5	1·62	+1·05
——	Scilly (St. Mary's)	53	36	46·2	+ 0·2	7	1·70	+0·66
	Jersey (Noirmont)	54	32	43·6	− 0·8	7	0·88	+0·13

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending December 30, 1878.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, December 24.

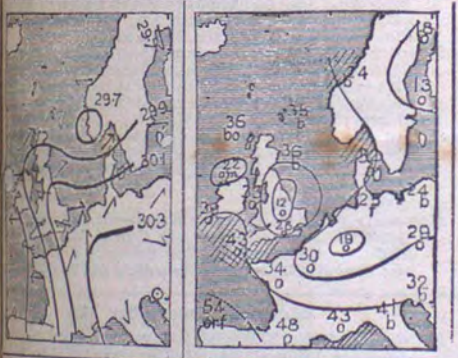
Weather fair generally except in France; mist prevailing at several stations, fog in London and at Oxford; snow in the Shetlands and at Christiansund. Snow in N., rain in W., later during day.

Temperature risen Sweden, fallen most other places, varying from 40° at Scilly to 15° over Central England. Following night extremely cold at English stations; minima 6° at Oxford and Nottingham, 11° in London and at York.

Wind north-westerly on most of our coasts, easterly over France and the Channel; strong at Scilly, moderate or light elsewhere. North-westerly gale Christiansund. The easterly wind spreading over western stations during day and increasing in force.

Sea moderate to smooth in morning, rough in S.W. in the evening.

Barometer risen briskly in nearly all parts of our area, but falling at Coruña. Anticyclone lying over Ireland and England, but depression subsequently crossing Bay of Biscay to our S.W. coasts.



Wednesday, December 25.

Weather fair at some of the north-eastern and northern stations, but dull generally, with rain at Cork and Pembroke. Rain over the whole of Ireland and England later in the day.

Temperature fallen in the N.E. and central parts of England; risen briskly in the N., W., and S.W. Rising steadily in succeeding 24 hours in the S.

Wind westerly in the N., south-easterly to easterly in the S. and W.; strong generally in the S.W., and blowing a gale at Scilly and Cork. Falling lighter by the evening.

Sea rough in the S.W., high at Scilly.

Barometer highest (and rising) over N. Germany and the E. of France; falling briskly elsewhere. Large area of low pressure in the S.W., small depression in N. Gradients steep. Pressure giving way over the United Kingdom all day.

Thursday, December 26.

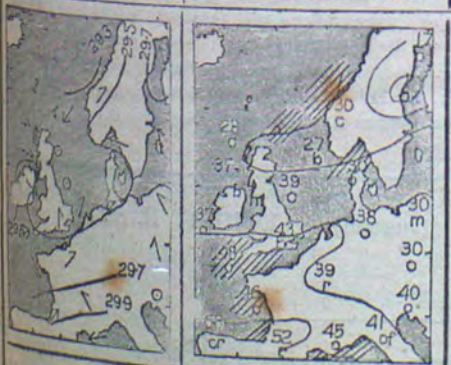
Weather unsettled, dull, or very cloudy everywhere; snow falling in the N.E. and rain at some stations. Rain, snow, or hail during the day except in the W. and N.

Temperature fallen in the E. of Scotland and E. of Ireland, risen fast elsewhere—as much as 20° over Central England. 8 A.M. readings varying from 50° at Scilly to 24° at Aberdeen. Rapid thaw in S.; maximum readings 48° in London, 52° at Scilly.

Wind southerly to south-westerly over France, the Channel, and S. of England, south-easterly to easterly in the N.; fresh to strong in some places, but moderate generally.

Sea rough in the Channel.

Barometer falling briskly, rapidly over Central England. Readings highest over eastern Europe and lowest over our S.W. coasts. Not much change during the day. Depression in S.W. moving eastwards very slowly.



Friday, December 27.

Weather fine at many of our more northern stations, but dull and very cloudy elsewhere with fog or mist in several parts of England and at Fanö. Snow at Nottingham. Rain subsequently occurring, generally.

Temperature rather lower than on the 26th at our northern, western, and south-western stations, but higher elsewhere. Readings varying from 48° at Scilly to 20° at Thurso. Maxima in the S. between 45° and 50°.

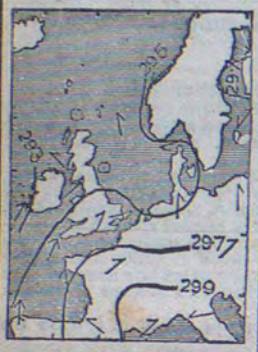
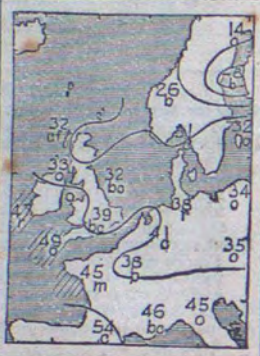
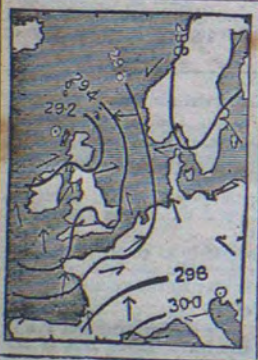
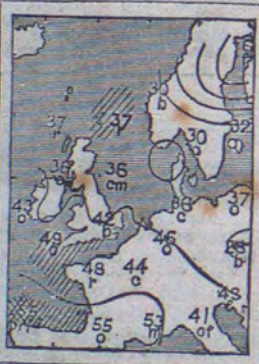
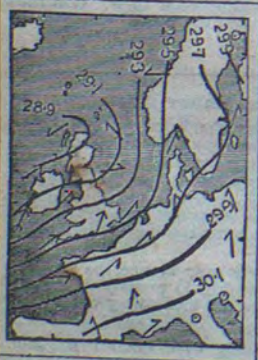
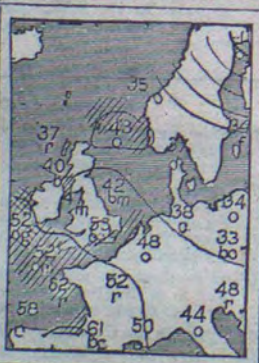
Wind variable in the N.E., northerly over Ireland, westerly to south-westerly over the channel, and north-westerly over the Bay of Biscay; more variable on the eastern shores of the North Sea. Light and variable on our coasts during the day.

Sea rough both in the S.W. and N.E.

Barometer unsteady; rising over the W. of France and the W. and N. of England, falling elsewhere. Pressure greatest over the Mediterranean, and several small depressions shown over or near the British Isles.

(Continued over.)

(Continued.)

Synoptic Weather Charts.—8 a.m.		Weather during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		**Saturday, December 28.** *Weather* fair in the S.E. and in some parts of Scotland, but most other places. Fog or mist at a few stations, rain falling at Valentia. Rain everywhere during day, heavy in the W. and N. *Temperature* fallen over France, on our N.E. coasts and in Sweden, risen elsewhere. Weather mild in the S., still cold in Scotland (19° at Nairn), but getting much warmer during day. *Wind* south-easterly over the Bay of Biscay, generally southerly to south-westerly on most of our coasts, but easterly in the N. of Ireland, and calm in Scotland. Strong in the S.W. and increasing to a fresh gale at Scilly in the afternoon. *Sea* rough in the S.W. *Barometer* rising at the more eastern and southern stations, falling in the W. Readings highest in the S. of France and small depressions appearing over our western coasts in the course of the day.
		**Sunday, December 29.** *Weather* dull and very cloudy in nearly all places, with rain over the N. of Scotland, the N. of France, and some parts of England. Dull and unsettled at most stations all day, but locally clear in Scotland at 6 P.M., and occasionally very fine in the S.E. of England. Rain fell everywhere. *Temperature* risen fast at our northern stations, and several degrees over France, but fallen slightly elsewhere. Readings varying from 49° at Scilly to 35° at Nairn. Thermometer reaching 53° in London, and 59° at Cork during day. *Wind* generally southerly (S.W.—S.E.) over western Europe, but drawing into E. in the Shetlands. Blowing freshly in the S.W., and strongly at Sumburgh Head. Strong S.S.W. wind at Valentia at 6 P.M., and southerly gale in S.W. at night. *Sea* rough S. and N. *Barometer* risen briskly over Scandinavia, fallen elsewhere. Readings high both over the Gulf of Bothnia and the Mediterranean; large shallow depression in W. and N.W., and several small depressions passing over the British Isles.
		**Monday, December 30.** *Weather* fine in the N.W. and N.E., very cloudy and unsettled elsewhere; rain at several of our own and the French stations, and mist at a few places. Rain subsequently fell except in the northern and central parts of England. *Temperature* risen, except in the Gulf of Bothnia, varying from 48° to 53° at our more southern and south-western stations. In London maximum 56°, and lowest temperature in following night 50°. *Wind* south-easterly in the W. of Norway and at Sumburgh Head, easterly in the N. of Scotland, south-westerly and southerly in most other places. Blowing strongly in the W. and S., and reaching a gale at Valentia and Skudesness. *Sea* rough in the S. generally, and high off Valentia. *Barometer* rising in the S., falling briskly in the N. Pressure high over Mediterranean. A deep depression lying over the W. of Scotland, and growing still deeper. Fresh fall in Ireland at evening.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached cloud; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Meteorological Office,
116, Victoria Street, S.W.

(Signed) ROBERT H. SCOTT,
Secretary.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[B 705.—150.—1/79.]